

# BUILDING AMERICA'S HEALTH

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A REPORT TO THE PRESIDENT

BY

THE PRESIDENT'S COMMISSION ON THE HEALTH NEEDS OF THE NATION



# IN FIVE VOLUMES

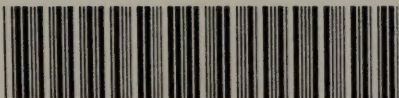
Findings and Recommendations—Volume I

America's Health Status, Needs and Resources—Volume II

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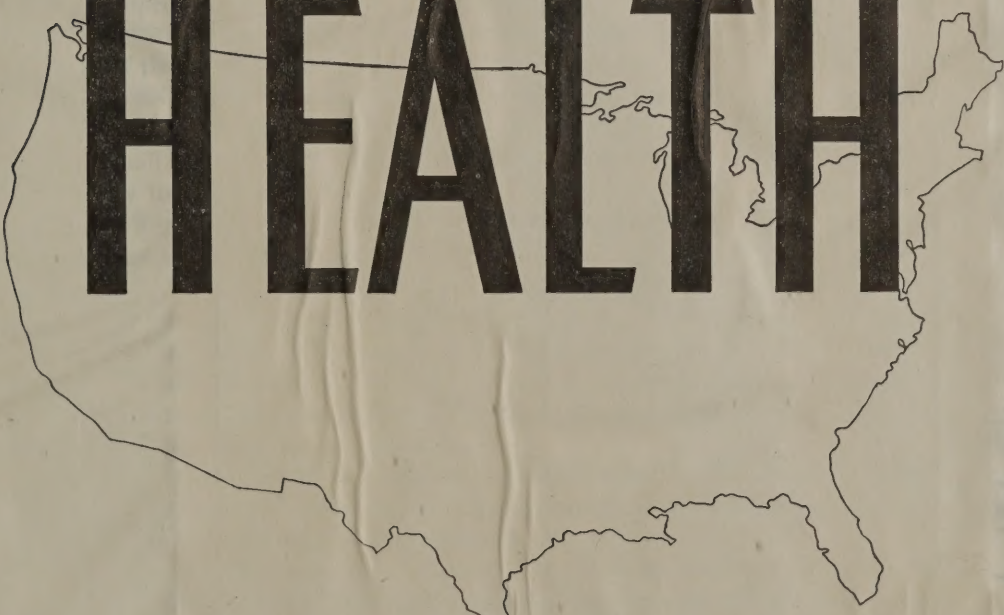


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FINANCING A HEALTH PROGRAM FOR AMERICA—VOLUME 4

# BUILDING AMERICA'S HEALTH

A thin black outline map of the United States is positioned behind the word "HEALTH" in the title. The map shows the continental United States, including Alaska and Hawaii.

A REPORT TO THE PRESIDENT  
BY  
THE PRESIDENT'S COMMISSION ON THE HEALTH NEEDS OF THE NATION



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# ASSIGNMENT FROM THE PRESIDENT

## Establishing the President's Commission

### on the Health Needs of the Nation

WHEREAS our Nation's strength is directly dependent upon the health of its people; and

WHEREAS the needs of our military, defense-production, and civil-defense programs for an assured and adequate supply of personnel and services present special problems in the allocation of our health resources during this emergency period; and

WHEREAS it is essential that at all times adequate provision be made to meet the health needs of the general public, including veterans; and

WHEREAS an objective appraisal of the effect of actions taken to provide for immediate and emergency needs is essential at this time in order that we may continue to meet long-term requirements for safeguarding and improving the health of the Nation:

NOW, THEREFORE, by virtue of the authority vested in me as President of the United States, it is ordered as follows:

Section 1. There is hereby established a commission to be known as the President's Commission on the Health Needs of the Nation, which shall consist of a chairman and fourteen other members to be designated by the President.

Section 2. The Commission is authorized and directed to inquire into and study the following:

(a) The current and prospective supply of physicians, dentists, nurses, hospital administrators, and allied professional workers; the adequacy of this supply in terms of the present demands for service; and the ability of educational institutions and other training facilities to provide such additional trained persons as may be required to meet prospective requirements.

(b) The present ability of local public health units to meet demands imposed by civil-defense requirements and by the needs of the general public during this mobilization period.

(c) The problems created by the shift of thousands of workers to defense-production areas requiring the relocation of doctors and other professional personnel and the establishment of additional facilities to meet health needs.

(d) The degree to which existing and planned medical facilities, such as hospitals and clinics, meet present and prospective needs for such facilities.

(e) Current research activities in the field of health and the programs needed to keep pace with new developments.

(f) The effect upon the continued maintenance of a desirable standard of civilian health of the actions taken to meet the long-range requirements of military, civil-defense, veterans' and other public service programs for medical personnel and facilities.

(g) The adequacy of private and public programs designed to provide methods of financing medical care.

(h) The extent of Federal, State, and local-government services in the health field, and the desirable level of expenditures for such purposes taking into consideration other financial obligations of government and the expenditures for health purposes from private sources.

Section 3. The Commission shall present to the President in writing such interim reports and final report of its studies of the subjects designated in section 2 of this order, including its recommendations for governmental action, either legislative or administrative, as it shall deem appropriate.

Section 4. In connection with its inquiries and studies, the Commission is authorized to hold such public hearings and to hear such witnesses as it may deem appropriate.

Section 5. All executive departments and agencies of the Federal Government are authorized and directed to cooperate with the Commission in its work and to furnish the Commission such information and assistance, not inconsistent with law, as it may require in the performance of its functions and duties; but this order shall not be construed as otherwise modifying the functions or responsibilities of any such department or agency.

Section 6. The expenditures of the Commission shall be paid out of an allotment made by the President from the appropriation entitled "Emergency Fund for the President, National Defense" (Title III of the Independent Offices Appropriation Act, 1952, Public Law 137, 82d Congress, approved August 31, 1951). Such payments shall be made without regard to the provisions of (a) section 3681 of the Revised Statutes of the United States (31 U. S. C. 672), (b) section 9 of the act of March 4, 1909, 35 Stat. 1027 (31 U. S. C. 673), and (c) such other laws as the President may hereafter specify.

Section 7. The Commission shall cease to exist thirty days after rendition of its final report to the President under section 3 of this order, or one year after the date of this order, whichever shall first occur.

HARRY S. TRUMAN.

THE WHITE HOUSE,

December 29, 1951.



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# PREFACE

Facts and ideas in regard to financing a health program for America are presented in this volume. This part of the report of the Commission was prepared in order to bring together in one volume some of the basic facts on health expenditures and to include the excellent statements presented to the Commission by the participants in the Panel on Financing a Health Program. These participants represented many different points of view as well as a wide diversity of experience.

Health expenditures cannot be studied adequately without information about health personnel, facilities, and services. The amount and quality of the product we buy as well as how much we spend must be considered. This particular volume does not contain data about personnel or facilities nor does it delineate the state of the Nation's health. These are dealt with in other parts of the report, especially volumes II and III, to which the reader is referred. For help in the preparation of this volume we are deeply indebted to many individuals and organizations. We should like to acknowledge with particular appreciation the contributions of the panel participants whose papers appear in Part I. While we should like to thank each of the many individual contributors to Part II, the list would be too long. We should, however, like to express our deep appreciation to the many organizations, public and private, whose staff members were of great assistance. Among the private organizations which gave considerable help on this volume especially were the Health Insurance Council, Blue Cross Commission, Blue Shield Commission, Cooperative Health Federation of America, the American Medical Association, the American Hospital Association, the American Dental Association, Permanente Health Plan and other private organizations.

Among the governmental agencies whose assistance was invaluable were:

Bureau of the Census  
Bureau of Labor Statistics  
Federal Reserve Board  
Federal Security Agency

Children's Bureau

Office of Vocational Rehabilitation

Public Health Service  
Social Security Administration  
National Research Council  
Division of Medical Sciences  
Securities and Exchange Commission  
Treasury Department  
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# I

## Papers Presented at Panel on Financing a Health Program





# MEDICAL CARE EXPENDITURES IN RELATION TO FAMILY INCOME AND NATIONAL INCOME

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## 1. Expenditures To Be Included

For the purposes of this discussion, I include expenditures for medical services of all kinds inclusive of public health services. Therefore, we include outlays for medical education, research, physicians and other personnel, hospitals, drugs, insurance, etc. We do not include expenditures for sickness (i. e., loss of income as against health insurance). Insofar as sickness insurance is used for medical care, the totals are considered. What is excluded is the difference between premium on sickness insurance and what is actually spent on medicine. In 1950, the Social Security Board estimated these benefits under income loss insurance at \$359 million. In 1949-50, \$368 million were spent by State and local governments on other insurance, probably mainly sickness (income loss) insurance.<sup>1</sup>

## 2. Relate Medical Expenditures to What?

The obvious comparison is of annual medical expenditures to annual national income, that is, the net output of goods and services in a year. For various reasons this is not the ideal measuring rod. Thus we want to include both Government and private outlays. Yet, national income is not the appropriate base to measure against for Government outlays, for these outlays are financed

out of taxes that are not by any means all included in national income.

Thus in 1950 the gross national product of \$283 billion included \$21 billion of capital consumption allowances and \$24 billion of indirect business taxes, which are not included in national income. Since neither of these items is available for private medical outlays, they should be excluded from any variable measuring the importance of private medical outlays. But for measuring government outlays, we compare income plus indirect business taxes. It may be assumed that Government is financed out of this total.

Actually national income (\$239 billion in 1950) is not the best measure for assessing the burden of medical expenditures. National income minus retained corporate earnings, corporate income taxes and contributions for social security (\$34 billion) plus transfer payments and Government interest (\$20 billion) gives personal income, obviously, a better index of capacity than national income. Out of personal income, private medical outlays are financed. For some purposes an even better index is disposable personal income (personal income—personal taxes).

Hence we compare:

1. Personal income and private medical expenditures.
2. Disposable personal income and private medical expenditures.
3. National income plus indirect business taxes and Government medical expenditures.
4. A combined index of (1) and (3), weighted to give over-all expenditures.

## 3. Government vs. Private Outlays

Part of the outlays usually registered here as private are in fact financed by Government. Thus a substantial part of the receipts from assistance,

<sup>1</sup> Social Security Bulletin, October 1951, p. 15; December 1951 p. 23.

veterans' pensions and compensation, and various insurance programs are spent for medical purposes. We shall make a rough estimate of the amounts spent privately but in fact financed by Government. We should, however, distinguish the amounts spent out of insurance funds from those spent out of assistance programs. (Though benefits under Old Age and Survivors' Insurance now and for many years will greatly exceed the contributions of the annuitants.)

In 1949-50, Government spent more than \$9 billion for income maintenance programs—retirement programs, unemployment and temporary disability insurance, workmen's compensation, veterans' retirement and compensation. Approximately one-half went to retirement programs. On the assumption that 5 percent of the benefits other than retirement (except veterans) were diverted to medical care, 10 percent of retirement income (health outlays seem about twice as large for this group), and 7½ percent for veterans' retirement, survivors' and disability programs, then the Government in fact finances \$700 million of medical care expenditures which on the record seems to be financed out of private resources. But approximately \$1 to \$1½ billion of the benefits, or \$50 to \$100 million of related medical outlays, are paid for out of private contributions to insurance. Hence the net amount involved is \$600 to \$650 million.<sup>2</sup>

## 4. Statistical Difficulties

### a. Hospitals

According to the Department of Commerce, personal expenditures on privately controlled hospitals and sanatoria for 1951 amounted to \$2,140 million. The Department apparently obtains this figure by adding to expenditures of hospitals depreciation allowances.

This total is not exactly an indication of personal consumption expenditures nor of total hospital expenditures. Table 7.3 gives \$3,912 billion for expenses of all hospitals, inclusive of Government. It apparently is a practice of hospitals to charge less than costs. Excluded from charges are capital costs and often parts of maintenance expenses.

Insofar as the excess of costs over consumer

expenditures is made up by Government outlays, then the difference is to be found in Government expenditures. (In 1944, taxes accounted for 47.4 percent of all hospital income, patient fees, 43.1 percent, with endowment accounting for 2.9 percent and other 6.6 percent).<sup>3</sup>

But part of the outlay escapes because gifts and endowments carry part of the charge. In the inclusion of total (not hospital) outlays, however, we estimate the contributions of philanthropy for endowment.

Even the inclusion of Government outlays does not exactly solve our problem. The difficulty in part is that Government expenditures include both capital and maintenance. In the years 1948-51, for example, when construction was large, the inclusion of Government outlays raises current expenditures on services: a disproportionate part of the capital costs is charged to current expenditures in these years. Inclusion of excessive capital charges for new construction offset to some extent the exclusion of part of capital costs incurred in earlier years.

In general, the public receives much more hospital service than is suggested by the Department of Commerce totals for personal outlays, a total not in fact of private outlays but private hospital expenditures plus depreciation. A part of what goes for private outlays is in fact Government outlays on hospitals—exclusive of Government hospitals. (This is true insofar as private hospital outlays are financed by Government.)

In 1944, it was estimated that hospital facilities were worth \$28.81 per capita and maintenance charges, \$9.29 per capita.<sup>4</sup> At 1951 prices, the facilities may conservatively be estimated at \$50 per capita and maintenance charges at \$16 per capita. Here I allow for the rise of prices since 1944 and also allow in a small way for the much higher replacement over cost valuations.

On the basis of these very rough estimates, the investment value of hospitals would be \$7.5 billion, and maintenance costs (exclusive of interest, taxes and insurance), \$2.4 billion. A rough estimate of uncharged capital costs is 8 percent, or \$600 million. This figure reduced by current capital outlays suggests the under-estimation of hospital charges in relation to costs. By concentrating on personal consumption outlays, we leave out of account all capital charges but depreciation and some part of maintenance

<sup>2</sup> For relevant figures on which these estimates are based, see Social Security Bulletin, October 1951, p. 15; and July 1, 1952, pp. 15, 19. Table gives \$225 million for public assistance medical outlays (D-20).

<sup>3</sup> FSA, Medical Care and Costs, 1947, p. 287.

<sup>4</sup> FSA, Medical Care and Costs, pp. 281, 284.



charges. Even the inclusion of capital outlays is only a partial offset to these expenditures.

### **b. Insurance**

It is not easy to allocate insurance payments for medicine. The Department of Commerce estimate puts private outlays in 1951 at \$653 million. This is a much lower estimate than that of Dr. Dean Clark in his report on Health Insurance Plans in the United States to the Committee on Labor and Public Welfare, U. S. Senate, 82d Congress, 1st sess., Report <sup>5</sup> 359. The Department of Commerce estimate is on a net basis, i. e., payments minus claims paid. In other words, the insurance payments appear in private outlays for medicine according to the purposes for which they are used.

According to the Federal Security Agency, total medical care voluntary insurance benefits in 1950 amounted to \$992 million, out of which total \$680 million went to hospitals. But total income of agencies and companies dispensing insurance was \$1,291 million. The figures here envisaged, as compared with the \$653 million of personal expenditures on insurance, are explained primarily by the net basis of the Commerce estimate, probably by the exclusion in the Commerce figures of nonprivate outlays—e. g., business or institutional payments for insurance. Insofar as the latter hypothesis is correct, personal consumption expenditures do not give an accurate picture of insurance outlays. Other explanations are given in the footnote below.

The difference between income and benefits of around \$300 million raises still another problem. Should these \$300 million be included as expendi-

tures on medical care, or should they be allotted to a satellite industry? If it is assumed that the job might be done for 10 percent instead of almost 25 percent, then certainly a substantial part might be eliminated. More recent figures point to further declines in the costs of private insurance to around 20 percent.

### **c. Problems of Exclusion**

One of the more difficult problems is what to include and exclude. Many outlays belong in substantial part in the category of health expenditures. Then, should the following be included?

*Fiscal 1953 budget  
(million dollars)*

1. School lunches (under the Public Health Service Budget) .....	83
2. Vocational Rehabilitation .....	24
3. Housing and Community Programs .....	678
4. Accident Compensation .....	37

Source: Budget, Fiscal Year, 1953.

### **d. The Significance of the Expenditure and Income Ratios in Relation to Price Movements.**

A useful interpretation of medical outlays would be tied to price movements as well as income movements. The latter, of course, reflects price as well as output changes. But if medical outlays are roughly 5 percent of national income in the 1930's and in the 1950's, and if prices of medical services rise twice as much as other prices, then in fact medical care as a percentage of real income (goods and services) would have risen but two-thirds as much as income.

Assume the following:

	Expenditures medical care (billion dollars)	National income (billion dollars)	Percentage (1) to (2)	Medical services price rise, percent	General price rise, percent	Correct (1) for price rise (billion dollars)	Correct (2) for price rise	Percentage real medical services to real income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Early 1930's .....	5	100	5	-----	-----	5	100	5
Early 1950's .....	20	400	5	200	100	6 $\frac{2}{3}$	200	3 $\frac{1}{2}$

Under these assumptions, the percentage of medical care services has dropped from 5 to 3 $\frac{1}{2}$

<sup>5</sup> For explanations of the differences between the two series relative to gross expenditures for insurance, the following is relevant: "The two main points of difference between our estimates of medical care expenditures and those in the Clark report relate to the expenditures for hospital services and insurance. As explained in part 1, p. 79, of that report, the Clark estimates for hospital expenditures include an upward adjustment of this Office's figures to allow

percent of real income, the explanation being the much greater rise of prices for medical service.

for private payments to public hospitals. On the other hand, this Office insurance estimate is larger than that of the Clark report because it covers policies of the income loss (weekly indemnity) as well as those in the 'hospital medical, and surgical' category." Letter from Mr. M. Joseph Meehan, Director, Office of Business Economics, Department of Commerce, to Seymour E. Harris, August 12, 1952.

Actually the price of medical services, according to official figures, has not gone up as much as the general (consumers' price) index.

<i>Consumer's Price Index for—</i>	<i>1951</i>
Moderate size families (1935–39).....	185. 6
Medical care and drugs.....	155. 0
Physicians' fees.....	145. 2
Dentists' fees.....	160. 0
Hospital rates.....	260. 7
Prescriptions and drugs.....	128. 4

Source: 1951 Expenditures for Medical Care, American Medical Association Bureau of Economic Research Miscellaneous Publications, August 1952, M-69.

This table suggests the following for 1951 as compared with 1935–39:

1. The dollar buys about 9 percent more in medical services relatively to 1935–39 than of all items. Hence, the percentage of income going to medical services in 1951 relative to 1935–39 should be corrected upwards by 9 percent.

2. The correction is even larger for physicians' services (approximately 12 percent).

#### Outlays for Health Services, Hospitals, Physicians, Prices, and Rise of Real Services, 1935–39 to 1951

	(1)	(2)	(3)	(4)	(5)
	Dollar outlays 1935–39 (million dol- lars)	Price rise of service per- cent	Dollar outlays corrected for price rise, 1935–39 to 1951 (million dol- lars)	1951 dollar outlays	Rise real services <sup>1</sup> per- cent
All health services.....	3, 120	55	4, 836	10, 145	111
Private hospitals.....	448	161	1, 169	2, 140	83
Physicians.....	821	45	1, 190	2, 520	112

<sup>1</sup> Percentage of (4) to (3) minus 100 percent.

Source: Computed from National Income, 1951 Edition, and Survey of Current Business, July 1952.

Even this increase in services is a surprising one. These figures suggest that the country is now receiving 111 percent more medical service, 112 percent more physicians' services, and 83 percent more hospital services. The rise in the number of physicians and dentists has been modest, only a very small percentage of the 1935–39 total. It is possible that the price index understates the genuine rise of prices for some medical services, or else medical expenditures are exaggerated to some extent. Even when allowance is made for excess capacity in hospitals, unemployed time for personnel in the late thirties, the rise seems large. Can physicians be giving 112 percent more service than in 1935–39 even when allowance is made for teamwork and excess capacity in pre-war?

<sup>6</sup> American Medical Association, 1951 Expenditures for Medical Care, p. 4.

It is incidentally correct, as the American Medical Association claims, that in 1951 only 50 percent of as large a percentage of a factory laborer's wages was required to pay for a physician fee as in 1935–39 and only 54 percent for all medical care and drugs.<sup>6</sup>

The implication is, of course, that compared to alternative markets, the medical market is offered at bargain prices. One should not, however, draw this conclusion without reservations. We would have to know, for example, more about relative qualities. It may well be that the physician confronted with many more demands on his time offers a deteriorated product compared with 1935–39. On this score it is interesting that from 1940 to 1951 independent physicians' net income has risen by 2 times, whereas weekly wages of factory workers has risen by 1½ times. If the price of the physician's product is less, relative to the worker's weekly wage, the worker's income has fallen relatively to the physician's.

Clearly the rise in professional personnel is very small compared to the 111 percent apparent increase in quantity of service. Even the increase of full-time medical employees, a rise several times as great as for professional personnel, was only 85 percent from 1935–39 to 1951. It would be well to compare the number of beds in private hospitals occupied in 1951 with the number in 1935–39. Possibly this plus allowances for additional services might match the 83 percent above. (Table 2.2, where the rise of services for Government health and hospitals from 1942 to 1950 is put at 29 and 57 percent, respectively.)

For the total product of the Nation, the gain has been but 100 percent. In view of the greater access to technological advances for the economy generally than for services, in view of the vast



growth of Government services, in view of the small rise in professional personnel, the 111 per cent rise in private services may be too large, and therefore the price rise of medical services may be larger than indicated.

## 5. Gains in Outlays on Medicine vs. Other Outlays

One index of the adequacy of medical outlays is to compare the gains with the rise in other areas of spending which most might consider less desired forms of spending. For example, I have used the following comparison:

**Expenditures in 1949 and Multiples of 1949 Expenditures Over 1933**

	Expenditures, 1949 (million dollars)	1949 expendi- tures as multi- ples of 1933
Medical care and burial.....	8,990	2.5
Purchased meals and beverages....	11,599	6.3
Tobacco.....	4,266	3.5
Clothing and accessories.....	22,620	4.2
Jewelry and watches.....	1,227	7.1
Personal care.....	2,200	3.3
Toilet articles.....	1,198	3.8
Beauty parlors.....	1,495	4.1
User-operated transportation.....	16,086	5.5
Recreation.....	10,184	4.6
Admissions.....	1,802	3.1
Pari-mutuels.....	233	38.8
Commercial participation amuse- ments.....	388	3.2

<sup>1</sup> 1948.

Source: Computed from Survey of Current Business, National Income Numbers.

It is clear that in the great advance from 1933 to 1949, the pattern of spending changed greatly in favor of categories not as high in a scale of needs. It is possible to carry this analysis too far, first, because the pattern is not easily subject to outside control, and second, the expenditures are subject to some revision. (The feature of recent British experience is that they have influenced the pattern of spending from luxuries to medicines through heavy taxes on non-essentials, with receipts used in part to support their medical program.) In our country, part of the outlay for tobacco, liquor, amusements, jewelry is for the financing of public services inclusive of medicine. The citizen who buys cigarettes purchases a joint

product, namely cigarettes and a government service.

I am indebted to Mr. Leon Keyserling, Chairman of the Council of Economic Advisors for the following:<sup>7</sup>

"The following table shows the liquor and tobacco taxes as a percent of average retail selling prices. The estimates for Federal taxes were computed by the Treasury Department. The State-local figures are some rough estimates, computed by taking the relationship between State-local collections and Federal collections for the different taxes.

Commodity	Federal	State-local	Total
	Percent	Percent	Percent
Distilled spirits.....	43	9	52
Sweet wine.....	17	4	21
Beer.....	17	4	21
Cigarettes.....	37	12	49
Cigars.....	9	3	12
Manufactured tobacco.....	13	4	17

"According to estimates of the Department of Commerce, Federal, State, and local liquor tax collections amounted to 36 percent of consumer expenditures for alcoholic beverages in 1951. For Federal taxes alone, the estimated percentage is 30 percent. Federal, State, and local tobacco tax collections accounted for 40 percent of consumer expenditures for tobacco products. The figure for Federal taxes is about 30 percent."

This point can be put more dramatically in the table below. The British spend much more on medicine than the United States. In 1949-50, the British Government spent 16.6 percent of their national income on welfare expenditures and the United States 10.4 percent; the respective figures for health services were 3.7 and 1.4 percent, respectively.<sup>8</sup> (The U. S. Budget Bureau total is larger for it is more inclusive.)

From the table below, it will be noted that prices of luxuries and semi-luxuries rose greatly in Great Britain; but consumption either declined or rose modestly. Whereas the price of tobacco rose by 288 percent, the actual rise would have been only 50 percent had not taxes increased. In other words, the British tax tobacco and alcohol and other items heavily, in no small part in order to finance social services. Hence, the large rise of outlays on tobacco and alcoholic drinks give a

<sup>7</sup> Letter to S. E. Harris, September 3, 1952.

<sup>8</sup> Social Security Bulletin, July 1952, p. 15.

misleading impression of the relative increase of consumption of alcoholic drinks and tobacco against health services.

**Consumption Expenditures (in Stable Prices) and Prices,  
United Kingdom, Total and Various Classes**

[1938 = 100]

	Consumption	Prices
Tobacco.....	112	388
Alcoholic drinks.....	93	288
Durable household goods.....	79	236
Private motoring.....	35	186
Domestic services.....	37	218
Other services.....	120	154
All.....	104	182

Source: National Income and Expenditures of the United Kingdom, 1946 to 1949, Cmd. 7932, p. 32.

## 6. Some Statistical Aspects of Medical Outlays<sup>9</sup>

Table I shows the relation of private medical outlays to personal consumption expenditures and income. With medical outlays, we include here, as does the Department of Commerce, death expenses. Those who do not agree with this classification can reduce the percentages involved by one tenth: death expenses vary from 9 to 11 percent of medical care and death expenses. The trends are scarcely affected at all.

In general, whatever the basis of comparison, medical outlays were relatively larger in the depths of the depression than in 1929 or the last four years. The explanation may be greater rigidity of medical prices and fees than in all commodity and service markets; the indispensability of medical outlays; and the increased need of medical help in period of impoverishment. The relative decline for medical outlays is large in relation to all variables—e.g., from 1933 to 1951, 21 percent reduction in relation to Gross National Product, 23 percent relative to personal income, 15 percent in relation to disposable personal income, and 6 percent in relation to all consumption expenditures. The insensitivity of medical outlays is especially evident in the tendency to maintain relative outlays more after than before taxes. (Personal income is disposable personal income.)

Relative to 1929, the changes are not large. For 1929–51, the percentage outlays relative to Gross National Product and personal income are roughly unchanged; in relation to disposable personal income and personal consumption expenditures, they are even higher in the later years. In view of the large rise of income, larger gains might have been expected.<sup>10</sup>

Table II gives the distribution of medical care expenditures according to source of funds. From 1929 to 1951, Government's share rises from 12.9 percent to 23.4 percent; consumer's share declines from 76.6 to 66.2. Philanthropy and industry change relatively little and private hospital construction rises somewhat.

Tables III and IV present more recent official estimates of Government outlays. The amount, according to the Bureau of the Budget, for 1951 (calendar year) is around \$1,800 million for the Federal government. The Social Security estimate is only \$1,016 million for 1949–50 (\$1.05 billion in 1950–51), or adding 20 percent for the gains from 1949–50 to 1951–52, about \$1,200 million for fiscal 1952. Apparently the difference is the result of a more narrow classification by the Social Security Board inclusive of the exclusion of military medical expenditures. Dr. Falk confirms this hypothesis. The Federal Security Agency estimate relates to civilian outlays only.

Total medical outlays for 1950–51 are as follows:

<i>Limits</i>	<i>Million dollars</i>
Consumer.....	8,918
Government.....	2,672
Private hospital.....	419
Philanthropy.....	400
Industry.....	700
Total.....	13,109

**These figures (especially 1.1) point to the increased absolute and relative participation of Government; and in part explain the small rise in personal outlays.** This does not allow for the 600–650 million spent privately but received out of public funds. Most of this money was not available 10 years ago. An allowance for this item would further accent the rise of Government outlays as a percentage of total outlays, nor are the \$500 million of tax allowances (losses by the Federal Government) for medical outlays included.

<sup>10</sup> Note the total is of medical outlays, not of medical services given, the latter being a larger total.

<sup>9</sup> Tables are in the Appendix.



Included in the \$13,607 million of medical outlays for 1951 are:

1. \$2,672 million of Government outlays exclusive of new hospital construction (Table 1.1). (The corresponding 1950 figure=\$2,423 million.)

2. Table 2.1 reveals that the Federal share of this total is about \$800 million (exclusive of new hospital construction).

3. But Table 2.1 reveals Federal figures (total) of \$1,535 million for 1949-50, that is fiscal 1950 (Federal obligations). Exclusive of new hospital construction the figure would be \$1,315 million. Note that this figure for fiscal year 1950 (1949-50) is about \$500 million in excess of the figure (\$800) used in obtaining the total of medical outlays.

4. The corresponding total figures for  
Fiscal 1951=\$1,750 million  
Fiscal 1952=\$1,842 million

(Letter from Elmer Staats, Assistant Director of the Budget, to the writer.) See Table III.

The net result is that the Government outlay as given in this total is apparently about \$500 million higher than the total included in the table of all outlays. Why the difference between figures given by two agencies?

One explanation is that the Budget Bureau includes non-civilian expenditures for medicine (e. g., the military) and also some other items. A second explanation is that the Budget Bureau uses obligated figures not actual expenditures.

It should be observed that the proportion of personal medical outlays to personal income declined from 4.3 in 1929 to 4.0 percent in 1951 and in relation to disposable personal income rose from 4.4 to 4.5 percent. Government outlays in relation to Gross National Product minus capital consumption increased from 0.54 percent in 1929 to 1.04 percent in 1951.

The public outlays (a mean of the two estimates above) yields:

1. 1929, 0.54 percent of Gross National Product—capital consumption.

1951, 1.04 percent of Gross National Product—capital consumption.

Private outlays:

(a)

(b)

2. 1929=4.3% personal income. 4.4% of disposable personal income.

1951=4.0% personal income. 4.5% of disposable personal income.

The rise in relation to relevant variables is less

than 60/100 of 1 percent in relation to (1) and (2b) and 20/100 of 1 percent in relation to (1) and (2a).

The total amount involved is probably much larger than is here assumed. For example, allowances for (1) Government services included by the Budget Bureau but excluded by the Federal Security Agency, (2) for tax losses resulting from medical deductions, for (3) medical outlays financed by non-medical programs, and for (4) military outlays on medicine, these would greatly increase the amounts spent by Government and the percentage rise of expenditures by Government. In addition, an allowance should be made for the medicine offered free or below market prices, by private dispensers.

Table VII gives a breakdown of Federal outlays, and Table VIII a record of Federal grants for hospital construction (aside from veterans, as revealed in Table VII). By fiscal year 1953, the amounts cumulate to \$542 million of appropriation or \$457 million of Federal payments. The latter is the germane figure though even these may not represent actual expenditures. Table IX gives a breakdown for State outlays.

## 7. Family and Household Medical Expenditures

### *Percentage Spent by Income*

In 1935-36 all families spent 4 percent of family income on medical care.<sup>11</sup>

In 1946, families with money incomes ranging from \$2,000 to \$4,000 ordinarily spent 6 percent of their income on medical care. In 1944 the figure is given as 4.5 percent for families of three persons.<sup>12</sup>

A family budget "which includes the kinds and quantities of necessary goods and services according to standards prevailing in large cities of the United States" allowed "\$127 to \$202 in the 34 cities in March 1946 and from \$132 to \$222 in June 1947, the medical budget requiring 5 to 7 percent of the entire budget."<sup>13</sup>

All available surveys show that as incomes rise a larger amount is spent on medical care; but a smaller percentage of income.

One explanation of the large relative outlays for low-income groups is that they spend more than their income. Thus, the \$501-\$999 class

<sup>11</sup> FSA, *Medical Care and Costs*, p. 142. (All references in this section to this publication unless otherwise indicated.)

<sup>12</sup> U. S. Department of Labor, BLS, *The Gift of Freedom*, 1949, pp. 36, 54.

<sup>13</sup> U. S. Department of Labor, BLS, *The City Worker's Family Budget*, February 1948, pp. 2, 24.

averaged \$313 income but spent \$887 for current consumption.

**Families and Single Persons, Percentage of Income Spent on Medical Care, 1944**

Income after personal taxation	Amount spent	Percentage of income
Less than \$500-----	48	17.0
\$501-\$999-----	67	8.8
\$2,500-\$2,999-----	119	4.3
\$5,000 or more-----	260	3.4

Source: FSA, Medical Care and Costs, p. 144.

Again, in 1941, as average money income rose, average medical care expenditures increased from \$27 for the less than \$500 income class to \$152 for the highest (sixth) class, with an income of \$3,000-\$4,999. The proportions steadily declined from 9.3 to 4.4 percent.<sup>14</sup>

For incomes of less than \$500 to more than \$10,000 (1935-36), the extremes for urban communities are \$22 and 4.0 percent of income (incomes less than \$500) and \$467 and 2.1 percent for incomes of \$10,000 and over. Amounts spent steadily rise and percentages decline over 13 income classes.<sup>15</sup>

In 1928-31, the extremes were \$56.24 for families with incomes of \$1,200 or less and \$455.24 for incomes of \$10,000 or over.<sup>16</sup>

In relation to consumption expenditures, the proportions do not vary as much. In 1941, from 4.3 percent for the lowest income group to 4.6 percent for the highest.<sup>17</sup>

Another way of expressing the inequalities is the following. Well-to-do families, which number less than 1 percent of all families, account for about 1.4 times as much medical consumption as the poor families which number 14.2 percent of all families.

**Families by Income and Medical Expenditures, 1935-36**

	Percent families	Percent income	Percent consumption expenditures	Percent expenditures on medical care
Incomes \$500 and less-----	14.2	2.8	4.7	4.9
Incomes \$1,250 to \$1,499-----	9.8	8.2	9.2	8.7
Incomes \$10,000 and over-----	.9	13.4	6.7	7.1

Source: FSA, Medical Care and Costs, p. 158.

<sup>14</sup> FSA, Medical Care and Costs, p. 154.

<sup>15</sup> FSA, Medical Care and Costs, p. 159.

<sup>16</sup> FSA, Medical Care and Costs, p. 164.

<sup>17</sup> FSA, Medical Care and Costs, p. 151.

It was noted before that part of the explanation of higher relative outlays by low-income groups is that they live beyond their income. Additional evidence of this fact lies in (1) the relation of changes and expenditures, and (2) numbers in families in relation to outlays.

It will be noticed that charges exceed expenditures for low-income groups and that charges are relatively fixed for the poor irrespective of number of children; but in the \$10,000 or over class, the cost for 8 or more in a family is 4 times that for a family of 1-2.

**Percentage of Family Income Represented by Charges and Expenditures for Medical Care in Family Group, 8,581 White Families in a 12-Month Period, 1928-31**

	Percent of family income			
	All incomes	Income less than \$1,200	Income, \$2,000-\$2,999	Income, \$10,000 or more
Charge-----	4.2	5.9	4.1	3.7
Expenditures-----	4.0	5.2	3.9	3.8

Source: FSA, Medical Care and Costs, p. 162.

**All Medical Care, Average Family: Charge, by Size of Family, Family Income Group, in a 12-Month Period, 1928-31**

[8,581 white families]

Number of persons in family	All incomes	Average charge per family		
		Incomes less than \$1,200	Incomes \$2,000-\$2,999	Incomes \$10,000 or more
1-2-----	\$97.99	\$46.09	\$100.07	\$240.89
5-----	108.78	44.61	104.15	539.30
8 or more-----	123.81	46.30	96.40	1,009.84

Source: FSA, Medical Care and Costs, p. 165.

The last suggests that charges are related to capacity to pay. A similar conclusion arises from an examination of the charges per case or per service. Thus for the average charge per person the extremes by income groups is \$4.49 and \$41.43 by physicians and \$0.91 and \$31.01 by dentists. Differences are undoubtedly influenced to some extent by the type of services received by different income groups.



### Average Charge Per Person, 1928-31, a 12-Month Period

[38,668 persons in 8,639 families]

	All incomes	Less than \$1,200	\$2,200-\$2,999	\$10,000 or more
Physician's charge per person-----	\$9. 53	\$4. 49	\$8. 96	\$41. 43
Dentist—average dental care charge-----	4. 52	. 91	3. 68	31. 01
Average charge per illness-----	17. 67	9. 00	17. 12	56. 61

Source: FSA, Medical Care and Costs, pp. 180, 182, 184.

## 8. Services by Income Classes

One will find a different structure of medical spending according to level of income.

High income groups (e. g., \$5,000-\$10,000 annually in 1942) spend much more in dollars and cents on each item; but relatively their outlays are especially large in dental care (19 percent of total vs. 4 percent for low incomes and 38 times as much in dollars and cents) and also large in private nursing, eye examinations, other practitioners, and X-ray. The low income groups spend much more relatively on hospital service (apparently there is less flexibility here than in other outlays) and more on medicine and drugs (the poor man's medical "bargains"). It is interesting that the lowest income group spends 50 percent of their medical outlays on hospital care and drugs as compared with but 20 percent for the higher income group studied. Inclusive of physicians' services, the lowest income group spends 77 percent; the highest only 49 percent. Hence, the latter spends more relatively on dental care and similar services. On

**All Medical Care: Estimated Average Expenditure and Percent of Total of All Families and Single Consumers for Specified Items of Care, by Money Income Group in Urban Communities, January-March 1942**

Money income group (for quarter)	All medical care		Physicians, specialists, surgeons		Eye examinations		Dental care		Other practitioners		Hospital care		X-ray		Private nurses	
		Percent		Percent		Percent		Percent		Percent		Percent		Percent		Percent
Less than \$125-----	\$7. 01	100	\$1. 86	27	\$0. 03	0. 4	\$0. 31	4	\$0. 13	2	\$1. 68	24	\$0. 05	1	\$0	0
\$1,250-\$2,499-----	63. 54	100	18. 54	29	. 82	1. 0	11. 93	19	3. 20	5	5. 39	8	1. 29	2	56	1

Money income group (for quarter)	Eye glasses		Medicine and drugs		Prepayment for medical care		Health and accident insurance	
		Percent		Percent		Percent		Percent
Less than \$125-----	\$0. 27	4	\$1. 79	26	\$0. 21	3	\$0. 64	9
\$1,250-\$2,499-----	2. 98	5	7. 67	12	2. 37	4	5. 98	9

Source: FSA Medical Care and Costs, p. 150.

insurance, the amounts spent are proportionately equal; but the amounts are \$0.85 against \$8.35; and the high income group spends 11 times as much on the less costly prepayment insurance and only 9 times as much on health or accident insurance.

Similar results are to be found in a 1941 survey. This study shows generally that as incomes rise, the proportion receiving a given service tends to increase. As might be expected, the gains are especially large in the services financeable by the well-to-do. Thus the gains (percent receiving a service) for several services from lowest to highest income groups are as follows. But it will be noted that the highest income group receive proportionately about twice as many services from physicians and seven times as many hospital services as the lowest income group.

### Percentage Receiving Service, 1941

[Families and single persons in urban communities]

Income	Physicians, etc.	Medicine and drugs	Eye examinations	Hospital care	Eye glasses	Prepayment for medical care
Less than \$500-	33. 7	62. 2	3. 1	2. 0	3. 1	3. 1
\$5,000-\$9,999 -	76. 2	83. 3	28. 6	14. 3	28. 6	28. 6

Source: FSA, Medical Care and Costs, p. 154.

In this same study, it is revealed that as incomes rise the percentage of medical care expenditures fall (the trend is reversed occasionally), for physicians, eye glasses, medicine and drugs, health and accident insurance, and rises for dental care, other practitioners, X-ray examination and private nurse.<sup>18</sup>

<sup>18</sup> FSA, Medical Care and Costs, p. 157.

A comparison of the amounts paid out for each service as a ratio of payments by highest income groups and lowest for this study (1928-31) with a similar one for 1941 reveals consistency of results. The ratios are roughly equal for physicians, hospitals, medicine and drugs. But in 1942, the highest income group pays out 28 times as much in 1942 and only 11 times in 1928-31; for eye glasses 12 and 2 times, respectively; and secondary practitioners 26 and  $1\frac{1}{2}$  times.<sup>19</sup>

For hospital charges according to a survey of 1928-31, the amount spent varies from \$67.39 for the family with incomes of \$1,200 or less to \$469.91 for families with incomes of \$10,000 or more. The percentage of the total outlays for hospitalized illness received by hospitals declines with income, whereas the proportion received by physicians and nurses rises with income.<sup>20</sup>

The statistical compilation prepared by the Commission staff presents several more recent surveys which show the same results for relation of family income to total medical outlays and also the varying pattern of outlays by income classes.

## 9. Summary and Conclusions

Total expenditures on medical care in 1951 were around \$14 billion, or about  $3\frac{1}{2}$  times the estimated figure for 1929 and less than 3 times that for 1941-42. (Inclusion of all relevant items would raise the total to more than \$15 billion.)

In relation to the relevant income figures, the rise has been from 0.2 of 1 percent to 0.6 of 1 percent of income, depending upon which of two relevant variables private outlays are related. An average of the two figures for private outlays suggests that in relation to income private outlays rose by 0.7 of 1 percent, or 0.8 percent.

Government outlays have risen much more: from \$510 million in 1929 to \$3,170 million in 1951, or from 0.54 of the gross national product minus consumption of capital in 1929 to 1.04 percent in 1951. The actual increase is undoubtedly greater, for excluded from the 1929 and 1951 figures are the large disbursements for medicine out of funds paid out by government in the first instance under various maintenance programs. The latter total may well be about \$600 million in 1951 or 0.2 percent of GNP. These sums are classified under

private outlays and might be included under governmental expenditures. Other omissions and under-estimates may increase government outlays 0.5-0.6 percent more as a percentage of gross national product.

It is a mistake to relate private outlays to gross national product as is frequently done. The medical outlays should be related to the income which must support them, namely, personal income (not national income) or disposable personal income (personal income minus personal taxes).

Most of our information on private medical care outlays comes from the annual income survey of the Department of Commerce. These figures should, however, be used with caution for our purposes.

For example, hospital outlays are hospital expenditures plus depreciation. They do not really measure personal consumer expenditures on hospitals, as the title of the table suggests. The figure published does not measure consumer expenditures for hospitals, for it includes depreciation, generally not paid for; and it excludes consumer outlays for public hospitals. Moreover, it does not measure the total costs of hospital service, for capital charges are largely excluded. It does not include, of course, the large outlays for public hospitals, which are included under public outlays. Inclusion of construction outlays is an offset, though actually these should be apportioned over the life of the new construction. In short, private hospital services obtained are much larger than consumption expenditures on hospitals.

Difficult problems arise in other areas also. The insurance item is in fact payments minus claims and, therefore, does not give outlays on insurance. The claims are presumably classified according to what was spent on medical services. How do we classify the \$200-\$300 million excess of income over benefits for insurance? Is this an outlay for medical care?

One of the most perplexing problems arises when we take account of price changes. Prices of medical care since 1935-39 have risen only 45 percent, as compared with 86 percent for all items in the medium income budget. This means that the consumer gets 9 percent more for his dollar than as a consumer of all items relative to pre-war than suggested merely by income figures. He gets 12 percent more of the physicians' services.

The American Medical Association can then point with pride to the fact that the factory worker pays only one-half as large a part of his income for a doctor's visit as he did before the War. But

<sup>19</sup> FSA, *Medical Care and Costs*, p. 164. Note 1928-31 figures are for incomes of \$1,200 and \$10,000 and more and for all communities; for 1942, for urban incomes of \$500 and \$5,000-\$10,000.

<sup>20</sup> FSA, *Medical Care and Costs*, p. 188.



we need to know more about the quality of the service. Does he give less time? Is he more tired and crowded? It will be noted below that he presumably gives 112 percent more service and yet numbers have not increased by much.

When we adjust medical outlays by prices of medical services, we obtain the surprising result that medicine gives 111 percent more of services, private hospitals, 83 percent more, and physicians, 112 percent more. (Dollar expenditures for all services were up by 2 times and for hospitals by close to 4 times.) This rise in services yielded sums large even when allowance is made for excess capacity in pre-war. Consider also that the rise of all output in the economy was but 100 percent, and here the economies of production (increased efficiency) are probably of greater significance than in medicine. It is possible that the rise of prices is somewhat greater than official figures suggest or else that private expenditures are overdone.

Another measure is a comparison of medical outlays and alternative expenditures which are generally considered lower in the scale of needs. Here private outlays for medicine do not stand up well against many luxuries and semi-luxury items; from 1933 to 1949, the outlays for beauty care rose  $1\frac{1}{2}$  times as much as for medicine, of jewelry and watches almost 3 times, purchased meals and beverages  $2\frac{1}{2}$  times, pari-mutuels 15 to 16 times. But observe that in part these outlays are joint: they purchase governmental services as well. For every dollar spent for alcoholic beverages, 36 percent is spent for taxes. In Great Britain higher taxes for tobacco and alcoholic beverages finance medical outlays which are 2 to 3 times as large a part of national income as in this country. Of a 288 percent rise in the price of tobacco since pre-war, all but 50 percent are the result of higher British taxes.

Families spend a varying part of their income on health services. The usual figure is 4 to 5 percent of all consumption expenditures on medical care. The percentage varies with income. Thus, according to one survey the amounts are \$48 and \$260 for incomes of less than \$500 and more than \$5,000, respectively, and the percentage of income 17 and 3.4 percent, respectively. Another survey shows that 14.2 percent of the families in the lowest income group account for but 4.7 percent of medical outlays, while the highest income group with but 0.9 percent of the families spends 7.1 percent. That is to say, the high-income group spends 25 times as much per family.

One explanation of the percentage difference is that the low-income groups get more per dollar of outlay. They pay less than they are charged; bills respond little if at all as the number of children rises with income; the charges per service according to one survey are 9 times as large for the high income group. (It is, of course, likely to be a better service also.) For the \$10,000 income group and higher, the charge was 4 times as much for the family of 8 or more as against the family of 1 or 2.

Another feature of the pattern of spending is that high-income families spend more on every item than the low-income families; but spend relatively more on dentists, nurses, X-rays, etc. According to one survey, the low-income group spends 24 percent of medical outlays on hospitals and the high income group only 8 percent. For hospitals, drugs, and doctors the proportions are 77 percent for the low-income group and but 56 percent for the high. The poor spend disproportionately on drugs and medicine, the "poor man's" road to health, and also more relatively on expensive forms of insurance as against Blue Cross and the like.

## Statistical Appendix

### I. Private Medical Outlays, Income, and Personal Consumer Expenditures, Several Years, 1929-50

	1929	1933	1939	1947	1949	1950	1951
Gross national produce (GNP) (\$ billion)-----	103. 8	55. 8	90. 4	233. 2	255. 6	282. 6	329. 2
Personal income (\$ billion)-----	85. 1	46. 6	72. 6	191. 0	205. 9	226. 3	254. 1
Disposable personal income (\$ billion)-----	82. 5	45. 2	70. 2	169. 5	187. 4	204. 3	225. 0
Personal consumer expenditures (\$ billion)-----	78. 8	46. 3	67. 5	165. 6	178. 8	193. 6	208. 0
Medical care and death expenses (\$ million)-----	3, 620	2, 397	3, 386	7, 812	<sup>1</sup> 8, 990	9, 463	10, 145
Percent private medical outlays to:							
(1) GNP-----	3. 5	4. 3	3. 8	3. 4	3. 5	3. 4	3. 4
(2) Personal income-----	4. 3	5. 2	4. 7	4. 1	4. 4	4. 2	4. 0
(3) Disposable personal income-----	4. 4	5. 3	4. 8	4. 6	4. 8	4. 6	4. 5
(4) Personal consumer expenditures-----	4. 6	5. 2	5. 0	4. 7	5. 0	4. 9	4. 9

<sup>1</sup> Burial expenses, etc., in 1949=\$961 million; in 1933=\$380 million; in 1950=\$1,077 million; in 1951=\$1,169 million.

Source: Computed from Survey of Current Business, National Income Numbers, and Mid-Year Economic Report to the President, July 1952.

### II. Source of Medical Expenditure <sup>1</sup>

#### Estimated Annual Medical Care Expenditures in the United States, by Source of Funds

	Millions of dollars				Percentage distribution			
	1929	1935-36	1940-41	1941-42	1929	1935-36	1940-41	1941-42
Total expenditures-----	3, 656	2, 856	4, 630	5, 070	100	100	100	100
Consumer-----	2, 886	2, 205	3, 400	3, 718	79	77	73	73
Government-----	509	516	900	1, 000	14	18	20	20
Philanthropy-----	182	60	230	260	5	2	5	5
Industry-----	79	75	100	100	2	3	2	2

Source: FSA, Medical Care Costs in Relation to Family Income, p. 141.

### III. Obligations for Federal Health Activities, Fiscal Year 1950 <sup>1</sup>

	<i>Million dollars</i>
State aid (grants and direct operations)-----	211, 518
Research-----	89, 457
Training (other than State aid)--	19, 980
Medical care-----	1, 128, 417
Regulatory and other-----	85, 352
Total-----	1, 534, 724

<sup>1</sup> cf. Table 2.4.

Source: Letter from Elmer Staats, Assistant Director of Budget to writer, August 26, 1952.

The estimate for fiscal year 1951 is \$1,750 million and for 1952 is 20 percent additional over 1950-51, or \$1,841,669,000.<sup>21</sup>

<sup>21</sup> *Ibid.*



# IV. Expenditures, Health and Related, 1949-50 <sup>1</sup>

	Estimate of Social Security Board			Percent national income	Percent Government expenditures		
	Total (million dollars)	Federal (million dollars)	State and local (million dollars)		Total	Federal	State and local
1. Health and medical services, inclusive of hospital construction but exclusive of veterans.....	2, 144. 8	266. 7	1, 878. 1	1. 0	3. 3	0. 6	8. 0
2. Veterans health services.....	749. 1	749. 1	-----	. 3	1. 2	1. 8	-----
Total (1) and (2).....	2, 893. 9	1, 015. 8	1, 878. 1	1. 3	4. 5	2. 4	8. 0
3. Other welfare services <sup>1</sup> .....	417. 9	108. 1	309. 8	. 2	. 6	. 3	1. 3

<sup>1</sup> Includes vocational rehabilitation, child welfare services, school lunch programs, and institutional care.

Source: Social Security Bulletin, October 1951, p. 15.

## V. Government Expenditures for Civilian Health, 1947

[Million dollars]

	Federal	State and local	Total
Medical care of the needy (noninstitutional).....	25	125	150
Community health protection.....	69	247	316
Rehabilitation.....	18	7	25
Hospitals:			
Authorized construction.....	77	150	227
Maintenance of hospitals for tuberculosis, mental and chronic patients.....		373	373
Maintenance of general hospital.....		300	300
Maintenance of Federal establishments, including veterans' care.....	534	-----	534
Health manpower (training).....	( <sup>1</sup> )	15	15
Research.....	20	2	22
Total.....	743	1, 219	1, 962

<sup>1</sup> Less than \$1 million.

Source: The Nation's Health, September, 1948, p. 28.

## VI. Annual Expenditures for Health Activities by All Official Agencies of State, District of Columbia, and Territories, 1950

	Million dollars
1. Total 48 States.....	944. 7
2. Other jurisdictions (Alaska, District of Columbia, etc.).....	51. 6
3. Percentages of Annual Expenditures for 48 States derived from:	Percent
State.....	73. 4
Local.....	1. 4
Federal.....	<sup>1</sup> 15. 3
Other.....	<sup>2</sup> 9. 9
4. Per capita amounts, 48 States:	Dollars
48 States.....	6. 30
Maximum—Washington.....	13. 68
Minimum—Tennessee.....	3. 26

<sup>1</sup> Includes school lunches.

<sup>2</sup> Includes payments for hospital services, workmen's compensation, license fees.

Source: FSA, Distribution of Health Services in the Structure of State Governments, 1950, part 1, pp. 40, 43.

## VII. Federal Outlays Itemized

[Million dollars]

	Fiscal year, 1951	Fiscal year, 1953
1. Vocational rehabilitation.....	17	24
2. School lunches.....	83	83
3. Accident compensation.....	27	27
4. Promotion public health <sup>1</sup> .....	305	<sup>2</sup> 341
5. Grants for hospital construction.....	107	126
Hospital and medical care.....	28	34
6. Veterans—hospital and medical care:		
a. Current expenditures.....	600	695
b. Hospital construction.....	145	107

<sup>1</sup> Other large items under public promotion: Public Health other than that designated, National Institutes of Health, National Cancer Institute, mental health activities, National Heart Institute, construction of research facilities.

<sup>2</sup> Major items—292=Public Health Service.

33=Children Bureau grants—national.

7=Food and Drug Administration.

Source: The Budget of the United States Government, fiscal year ending June 30, 1953, pp. M-63, M-68, 227, 1147.

Federal grant expenditures, fiscal year, 1951-52:

1. Under 10 health programs=\$233 million.

Source: Elmer B. Staats, Health Programs in the Federal Budget, mimeographed, December 26, 1951, p. 5.

2. 1950-51=\$168.9 million, or 7.6 percent of \$2,243 million of Federal grants.

Source: Social Security Bulletin, June 1952, p. 12.

## VIII. Grants for Hospital Construction, Public Service, Cumulative Allocations, Payments, etc., Fiscal Years, 1948-53

[Million dollars]

Fiscal year	Allocations to States	Federal share of approved projects	Appropriation for Federal payments	Federal payments
1948.....	75	4	15	0.4
1949.....	150	90	55	10
1950.....	300	208	95	67
1951.....	385	351	205	176
1952.....	467	457	387	331
1953.....	542	532	542	457

Source: The Budget of the United States Government 1953, p. 249.

## IX. State Expenditures for Health, 1937 and 1946

[Million dollars]

	1937	1946
Operation:		
a. Health.....	34	104
b. Hospitals, Institutions for Handicapped.....	183	322
Capital Outlay:		
a. Health.....		1
b. Hospitals, Institutions for Handicapped.....	44	16
Aid to Local Government:		
a. Health.....	2	29
b. Hospitals, Institutions for Handicapped.....		10
Total.....	263	482

Source: National Industrial Conference Board, The Social Security Almanac, 1949, p. 41.



# WHAT WE GET FOR WHAT WE SPEND FOR MEDICAL CARE

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I should like to present my views on this subject in two quite different parts: first, "What We Spend," and second, "What We Get" for what we spend for medical care. First, consider "What We Spend." This subject was thoroughly dealt with in the statistical compilation of the costs of medical care which was prepared by the staff of this Commission for use in the study of the subject. Emphasis is on governmental costs. My emphasis will be upon consumer expenditures. The compilation, however, gives nothing on "What We Get" for what we spend. While not intending to criticize those who planned and compiled this information, I do want to say quite frankly that I think it is unfortunate to present only half the story of medical economics. In general, economists consider cost and value as two aspects of the central theme.<sup>1</sup> Frankly, the study is a good deal like an exhaustive treatment of what the American people spend for bread without giving any estimate of the number of loaves purchased or the quality of the bread consumed.

<sup>1</sup> I have two other specific criticisms of this study. While these concern material which is not directly related to the topic on which I am speaking today, I think they should, nevertheless, be mentioned in this footnote. The section on physicians' income fails to give the 1929 average income for "all physicians." This figure, \$5,304, has been published by the Department of Commerce in its report on the Income of Physicians in the Survey of Current Business. I am particularly familiar with the data compiled in this study of the 1949 incomes since the study was conducted jointly by our Bureau at the American Medical Association and the Department of Commerce. The compilation in presenting income data for physicians, lawyers, and dentists also fails to mention the fact that interns, residents, and fellows are excluded from the survey of physicians' incomes, while the younger lawyers and dentists are included in the surveys of their professions. The Department of Commerce and our Bureau did not believe they should be included in such a study, but this omission must be recognized in comparisons with other professions. The Department of Commerce article in the Survey of Current Business reporting the results of our study of physicians' incomes notes that if interns, residents and fellows were included in the concept of civilian physicians, the average net income of all physicians would be lowered by perhaps 10 percent.

In considering this problem, I have used three items published by the Bureau of Medical Economic Research. The first is Bulletin 87, Medical Care Expenditures, Prices and Quantity, and M-69, 1951 Expenditures for Medical Care. These items provide most of what I have to say regarding "What We Spend." My comments on "What We Get" are largely taken from our brand new Bulletin 92, Mortality Trends in the United States, 1900-1949. A summary of Bulletin 92 and an editorial appeared in last week's Journal of The American Medical Association. The editorial and the summary are reprinted on the last three pages of Bulletin 92.

Now for my first subject, "What We Spend." Although the statistical compilation by the Commission staff presents much data on medical care expenditures, it provides no frame of reference. Dollar expenditures are very deceptive, particularly in a period of inflation. I think dollar data must be expressed as a percentage of some national aggregate to bring out their meaning, a meaning which cannot be given by merely deflating the dollars to 1935-1939 as the compilation does in a few instances. Although I shall repeat some of the amounts given, I trust that the use of total personal consumer expenditures as a frame of reference will give my points greater meaning.

According to Department of Commerce estimates, Americans as consumers spent \$9.0 billion on medical care in 1951, while their total personal consumer expenditures for all goods and services were \$208.0 billion. As you know, the personal consumer expenditure data generally exclude expenditures by government. Expenditures for medical care in 1951 constituted 4.3 percent of the consumer's budget; in 1930, \$2.9 billion, while total consumer expenditures were \$70.8 billion; thus medical care expenditures equalled 4.1 percent of total consumer expenditures in 1930. Hereafter I shall omit "billion" in stating dollar amounts. In 1935-1939, average annual

expenditures for medical care were \$2.6 and total consumer expenditures, \$63.6; medical care expenditures were 4.2 percent of total consumer expenditures in this base period. As a matter of fact, for every year since 1929, when personal consumer expenditure data were first compiled, the proportion of the consumer's budget spent for medical care has fluctuated narrowly around 4 percent.

Of the \$9.0 spent by consumers on medical care in 1951, \$2.5 was spent for physicians' services, \$2.1 for hospitals, \$1.6 for drugs and sundries, \$1.0 for dentists' services, and \$1.8 for "all other medical care". Thus, 28.1 percent of the medical care dollar was spent for physicians' services, 23.8 percent for hospitals, 17.5 percent for drugs and sundries, 11.0 percent for dentists' services, and 19.6 percent for "all other medical care". In contrast, the 1930 percentages for physicians and hospitals were 31.8 and 13.9, respectively. The principal trend in the distribution of the medical care dollar has been the decreasing portion going to physicians and dentists and the increasing portion going to hospitals.

On the average, expenditures for medical care form a small part of the consumer's budget. As has often been pointed out, they are approximately equal to expenditures for alcoholic beverages and less than expenditures for recreation. The important point is that this is the manner in which Americans choose to spend their budgets. They spend only 4 percent for medical care, not because they cannot afford to spend more but because they choose to spend 96 percent of their budgets for items other than medical care.

Government also makes expenditures for medical care. These amounted to roughly three billion dollars in 1951, according to the September 1952 issue of the Social Security Bulletin of the Federal Security Agency. Government expenditures for medical care are presented in the compilation of the Commission in great detail. It is my opinion that this study places undue emphasis on Government medical expenditures. It also includes expenditures which cannot be properly classified as expenditures for medical care. It does exclude from Government expenditures the medical expenditures of the military establishment but includes all medical expenditures of the Veterans Administration with the exception of expenditures for domiciliary care. The Veterans Administration expended almost \$6 billion, not all for medical care, of course, in 1951. How much of this amount

is included in the total for Government expenditures given in the Social Security Bulletin (the source for the Commission compilation) is not determinable from the information given. If, as I suspect, Veterans Administration costs loom large in the figure given, these estimates of Government expenditures for medical care misrepresent the actual amount spent for medical care by Government. War expenditures, such as those of the Veterans Administration, are not truly medical expenses, but part of the cost of war. I believe that Veterans Administration expenditures should be eliminated entirely from the data presented in the Commission study, or medical expenditures for the military establishment added. They are inseparable, for both are costs of war.

I have used personal consumer expenditures as a frame of reference rather than personal or national income because I believe that the more inclusive aggregates are not strictly comparable to consumer expenditures for medical care since these data do not include Government expenditures. One could add all Government expenditures for medical care to personal consumer expenditures for medical care and express the total as a percentage of any of the national aggregates—gross national product, net national product, national income, personal income, disposable personal income. With total Government expenditures increasing so greatly—partly as a result of defense expenditures—it is likely that the percentage relationships would not differ too greatly from those arrived at using consumer expenditures only; or, if the percentages did differ considerably, the significance would be difficult to determine. We believe the fewest difficulties in concept of national aggregates are involved in our choice of personal consumer expenditures. The substantial increases in the national debt have, moreover, made the precise meaning of these national aggregates quite uncertain.

While expenditures for medical care and expenditures for all goods and services in the consumer's budget increased at approximately the same rate, medical prices lagged considerably behind prices in general. Data from the Department of Labor's Bureau of Labor Statistics indicate that the Consumers' Price Index was up 85.6 percent since 1935–1939, while the price index of medical care and drugs had risen only 55 percent by 1951. Physicians' fees rose 45 percent; general practitioners' fees 45 percent, and surgeons' and specialists' fees 44 percent. Of all the medical



care items, hospital rates alone rose more rapidly than the index of the prices of all goods and services—rising 161 percent since 1935–1939. This increase, of course, reflects the hospital's exposure to the full impact of inflationary forces, the provision of a much shorter working day for nurses and other employees, and the inability of a hospital as a charitable institution to stabilize costs through such customary accounting measures as depreciation and taxes. It also must be remembered that while hospital rates have increased, average length of stay has decreased. This change reduces the total bill paid for an average illness.

At the same time that medical care items underwent a relatively small increase in price, average weekly earnings increased rapidly. According to the U. S. Bureau of Labor Statistics, average weekly earnings of production workers in manufacturing industries increased 189 percent (\$22.42 to \$64.88) between 1935–1939 and 1951. With medical care and drug prices rising only 55 percent, it would take just 54 percent of a week's wages in 1951 to purchase the same amount of medical care as a whole week's wages in 1935–1939. Exactly one-half of a week's wages in 1951 was necessary to purchase the same amount of physicians' services as a whole week's wages in the base period. The hospital services purchased with a week's wages in 1935–1939 would require 90 percent of a week's wages in 1951.

## ***What We Get***

Now consider what we get for what we spend. Since consumer expenditures for a given item are equal to the average price of that item multiplied by the total quantity purchased, we can arrive at a rough index of the quantity of medical care by dividing the index of expenditures for medical care by the corresponding price index. Using this procedure, we find that the index of the quantity of medical care rose from 1.0 in 1935–1939 to 2.2 in 1951. This crude ratio or index indicates that the amount of medical care purchased by the American people has more than doubled since the base period. Because of a 20 percent increase in population during this interval, the increase in quantity per person was somewhat less, about 85 percent.

These indexes of quantity, however, have certain inherent limitations. Primary among these is the fact that consumer expenditures are estimated for the entire Nation while the price

indexes cover only moderate-income families in 34 large cities. Despite this limitation, the Consumers' Price Index series is widely used by statisticians in this same manner to arrive at quantity indexes and is generally the basis of wage negotiations between employers and employees regarding the cost of living. But because of the chance of error involved it probably would be more realistic to assume that the increase in the quantity of medical care purchased between 1935–1939 and 1951 was somewhat less than 85 percent per capita.

Using the same procedure we can find quantity indexes for the individual medical care items. The quantity index for physicians' services was 2.1 for 1951, or twice as great as the quantity in 1935–1939. Again, a more conservative estimate is warranted. After allowing for the gain in population and the shortcomings of the data for these computations, the increase in the per capita quantity of physicians' services received was at least one-third to one-half.

These indexes can also serve to give a rough indication of the increase in the amount of services delivered per physician. According to the latest available data, the increase in the number of physicians between 1935–1939 and 1951 was 26 percent. If the index of the quantity of physicians' services is adjusted for this increase, we find that the quantity of service delivered per physician during these years increased 68 percent. A more conservative estimate would be an increase of 50 percent. This undoubtedly demonstrates the increased capacity of the physician to care for patients made possible through the greatly expanded use of nurses and technical assistants, the introduction of wonder drugs, improved transportation, the increasing proportion of patients seen in the hospital and office, and other increases in technological efficiency.

The quantity index for hospital services in 1951 was 1.8, for dentists' services 1.8, and for drugs 2.2.

All of the ratios should be considered rough approximations. Although the precise quantity increases are unknown, it is obvious that the American people are enjoying the fruits of technological improvements in the field of medicine just as in industry, agriculture, and transportation. It should be extremely clear to all students of medical economics that the supply of medical services can no longer be measured by counting the number of active physicians, dentists, and nurses.

On the whole, these indexes indicate that the

American people in 1951 were receiving relatively more medical care for their money than they were in 1935-1939.

But the great improvements in the quality of medical care, which have made a given amount of services so effective today, can never be measured by quantity indexes. What is our system of medical services giving us in terms of health? While our health, of course, is not dependent on medical service alone it is medical service aided by better food, better housing, and better sanitation that is responsible for our present level of health. What is this level? What do we get in terms of health for the money we spend?

The statistical compilation fails to answer this all-important question. The quantity and quality of physicians' services is either an important or an unimportant fact. Perhaps it is the Commission's intention to publish facts and figures presenting value—our health progress as measured by our vital statistics.

Our own Bureau at the American Medical Association has recently published Bulletin 92, *Mortality Trends in the United States, 1900-1949*, which provides some of this information. Most of the second half of this presentation is based upon Bulletin 92.

## Three Indexes of the General Health Situation

There are three commonly used measures of the general health situation in a Nation: maternal mortality, infant mortality, and life expectancy at the various ages, particularly at birth. These measures are closely related but are distinct aspects of health. Life expectancy at birth reflects the current mortality rates at all ages, whatever the causes of death; it is a static concept, not a forecast. Maternal mortality involves only the number of deaths due to diseases of pregnancy, childbirth and the puerperium. Infant mortality does not identify the specific causes of death but is defined on the basis of the age at death (under one year).

### *Maternal Mortality*

The maternal mortality rate in the United States was 6.2 maternal deaths per thousand live births in 1933, the first year in which every State was included in the registration area. At that time we ranked eleventh among the leading nations in

maternal mortality. Today our maternal mortality rate is down to the very low level achieved in the healthiest small nations; it is below the apparently irreducible minimum of 1.0 deaths per 1,000 live births. In 1950 our rate was 0.8 deaths per 1,000 live births. Equally important is the fact that the spread between the highest and lowest State rates decreased from 7.2 (11.5-4.3) in 1933 to 2.3 (2.6-0.3) in 1950. The highest State rate in 1950 was 2.6 maternal deaths per 1,000 live births, which was less than two-thirds of the rate, 4.3 for the best State (that is, the State with the lowest rate) in 1933. Thus the progress against maternal mortality has been general throughout the country. This form of health progress has not been limited to the wealthier section of our Nation—as some people are always claiming about all phases of health progress.

As has often been pointed out, international comparisons have very limited meaning. For example, it is almost impossible to compare a large nation with a very diverse population like the United States with a small nation having a homogeneous population. For example, New Zealand excludes its native Maoris in computing their statistics, while we include our Negro population. But even in the face of such disadvantages, the maternal mortality rate of the United States is among the lowest, if not the lowest, of all nations. Denmark and New Zealand may have rates about the same as ours, although there is no official data for these other countries for 1951. But even more phenomenal is the fact that in 1951, Connecticut, a state which has a larger population than New Zealand, had a maternal mortality rate of 0.1; so did Oregon.

Other nations are also experiencing a considerable drop in their maternal mortality rates. As this has occurred, the spread between the rates of the healthier nations has narrowed. As maternal mortality rates in many nations approach the level of 1.0, they will no longer be a gauge for comparison of the health of nations. A spread of only 0.1 or 0.2 between the rates for any two nations may well be statistically insignificant; the small differences may be due to errors in reporting the number of maternal deaths and live births. Maternal mortality has become a local problem.

### *Infant Mortality*

Our infant mortality rate has shown similar improvement. In 1933 the infant mortality rate for the entire United States was 58.1 infant deaths per



thousand live births. In 1950 the rate was 29.1 per thousand live births. Thus the 1950 infant mortality rate was almost exactly one-half of the 1933 rate.

On a percentage basis the reductions in infant mortality have been almost equal for whites and non-whites. The decline in the white infant mortality rate was approximately 70 percent from 98.6 in 1915 to 29.9 in 1948. The non-white infant mortality rate decreased from 181.2 in 1915 to 46.5 in 1948, a drop of 74 percent. The difference between the rates for the two race groupings is diminishing rapidly; in 1915 the non-whites exceeded the whites by 82.6 infant deaths per thousand live births, while in 1948 the difference was only 16.6 infant deaths. The difference between the infant mortality rates of the two groupings was only 20 percent of the difference in 1915.

Improvement in infant mortality has also been general throughout the country. In 1933, the first year for which we have infant mortality rates for all States, the difference between the State with the lowest rate and the State with the highest rate was 97.3 (136.1—38.8); in 1948, it was only 45.8 (70.1—24.3), less than half the difference in 1933.

How does our progress in infant mortality compare with other nations? In 1915 nine other nations had lower infant mortality rates than the United States; in 1933 there were only six; by 1949 this had been further reduced to five. Among the leading nations in 1949 were Sweden, New Zealand, Norway, Australia, and the Netherlands. In 1915, when the United States rate was 100, New Zealand's rate was 50; thus the United States rate was twice that of New Zealand just 37 years ago. In 1949 the United States rate, 31.1, trailed New Zealand (which excludes its native non-white population from these rates) by only seven; in fact, some of our States which are more similar to New Zealand in size and homogeneity of population have rates about as low as New Zealand's. Most of the differences between the low infant mortality rates of the leading nations are due to differences in the definitions of stillbirth and live births. When the adjusted stillbirth rate is added to the neonatal (first month) rate the leading nations are found to have almost identical combined, or stillbirth-neonatal rates. In fact, I believe that this term should displace the traditional term "infant mortality" in future compilations of vital statistics. In addition, the rate in 1946 for the second six months of the first year is lower in the United

States than in New Zealand or in any other nation. The differences in rates among the healthiest nations have become, therefore, of little significance. The important fact today is the very low rate that all these leading nations have reached. Future reductions will come slowly. Today in the United States, 97 percent of the babies born survive the hazards of the first 12 months of life.

### *Average Future Lifetime*

A very important measure of health progress is how long people live before they die. In 1900 life expectancy at birth in the United States was 47.3 years (Vital Statistics—Special Reports, Vol. 33, No. 9, February 16, 1951); in 1930 it was 59.7 years; in 1940 it was 62.9 years; and in 1949, 67.6 years. According to the Summary of International Vital Statistics 1937–44 (National Office of Vital Statistics, Washington, D. C., 1947) we outranked every other nation in the world with a population of over 15 million people with regard to life expectancy at birth in the years nearest 1940 for which statistics were available. As a matter of fact, our rate of health progress as indicated by increases in life expectancy at all ages, has been greater than the rate of health progress even in the small nations, with possibly one or two exceptions.

As with our infant and maternal mortality rates, our gains in life expectancy have been made in a population which contains, as a result of immigration, very diverse elements from the health standpoint—with different traditions regarding personal and household cleanliness and other basic factors in health. It seems unreasonable to compare the life expectancy at all ages of a small country with a homogeneous white population to the life expectancy of a large heterogeneous population. A more reasonable comparison of longevity could be made between some of the small countries and some of the States of the United States or some of the large groups in the United States whose parents and grandparents were born in these small countries. Thus we find that Swedes live longer in Minnesota than they do in Sweden and that Norwegians live longer in South Dakota than they do in Norway. I say "live longer in Minnesota and South Dakota" solely on the basis of comparisons in life expectancies at birth, which are not forecasts. Although the United States is not exactly comparable to Europe, some area as large as Europe would be needed to reflect all the climatic and demographic factors and the social, political, and economic institutions which influence

health in the United States. From the standpoint of measuring what we have done with our diverse population under widely varying conditions, I believe that the United States has accomplished much more in the way of health progress in the twentieth century than any other nation, large or small.

But measurement of life expectancy for a new baby does not tell the whole story. Life expectancy is not synonymous with length of life. Life expectancy at birth in any chosen calendar year, such as 1900 or 1940, is the predicted number of years the average baby will live on the basis of the mortality of the people of all ages during the baby's year of birth. In other words, it is the average number of years which he would live if he were to live his entire lifetime from cradle to grave in that one year or under the mortality conditions of that one year prevailing throughout his life. The average baby in the United States has been living longer than his life expectancy at birth simply because, as the baby passes through time, health conditions are improving.

Additional statistics which are often used as measures of health are the average age at death and the major causes of death. The average age at death rose from 36.9 years in 1900 (in the registration area) to 58.6 years in 1948, a gain of 21.7 years, or almost 60 percent. The four "older" causes of death, that is, the four diseases responsible for deaths at the higher ages—heart disease, cancer, cerebrovascular disease, and nephritis—accounted for 60.7 percent of all deaths in 1948. These same four causes accounted for only 23.0 percent of all deaths in 1900. In 1940, 1945 and 1948 fatal accidents cut off more years from working lifetimes (age 20 to age 65) of the American people than any one natural cause of death. Heart diseases account for almost five times as many deaths but most of the victims were at the retired ages. Fatal accidents accounted for about seven percent of all deaths. The decline in the number of deaths from pneumonia and tuberculosis has made prevention of fatal accidents the most acute problem of preventive medicine for people at the working ages of life. After centuries of famine, pestilence, and strange maladies, violence now assumes the premier role in the denial of the completion of the productive earning period of life.

A simple summary of our health gains is presented in the poster entitled "Our Health Progress Since 1900" which I have on the wall above my

desk. The changes noted in this chart are in large part, though not entirely, due to health progress: the other factors were changes in immigration and emigration and the natural growth of the population. First, in 1900 about one-third of the people dying had lived half a century or longer; about three-fourths of the people dying in 1949 had lived half a century or longer. Another way to put the same idea is that the older half of the people dying in 1900 had lived 30 years or more, and the older half of the people dying in 1949 had lived 66 years or more: in statistical terms the median age at death has advanced about 36 years. Third, life expectancy at birth in 1900 was 47 years; in 1949 it was 68 years. Fourth, since 1900 the entire population of the United States had doubled while the population age 65 and over had quadrupled. And last, the lowest State maternal mortality rate in 1933 was 4.3. The worst State in 1951 had a rate of 2.1 or less than one-half that of the best State 18 years previously.

## The "Health" Crisis

We started the century with a low health rank among the nations of the world, handicapped by a mixed population. Our rate of health progress has been so great that today we rank with the healthiest nations. We have no health crisis in America today in the traditional use of that term.<sup>2</sup> It must be understood, however, that there are limitations on medical progress. The "span of life" has not been increased; the oldest person in history may have lived in the first or tenth century

<sup>2</sup> In discussing what we spend and what we get for what we spend, I have studiously avoided any reference to unmet needs for medical care or, as the name of this Commission has it, "The Health Needs of the Nation." Unmet needs is, of course, an abstraction. Writers have pointed to the unmet needs for legal services and the unmet needs for medical services in area studies. Perhaps studies of unmet needs for dental services, for the services of accountants, engineers, and of other professional persons will be forthcoming. Only with a large number of these studies available could one appraise the relative standing or rank of the unmet needs for any one commodity or services, such as medical service. These additional studies would provide a frame of reference in which to evaluate the relative importance of unmet needs for medical services. Since persons literally need everything, need alone cannot determine the allocation of goods and services.

A study, however carefully conducted, that limits itself to the unmet needs for one type of service is likely to be misinterpreted. Conclusions can be reached according to the degree of alarm one wishes to create, of the frightful conditions traceable to the unmet needs for the one service under consideration. The whole person in his particular economic and social setting must be considered if a study of needs is to be of any value. I would urge the Commission to be very careful about the use of the term "needs". If it can show that medicine is lagging and the reasons for the lag, the Commission's findings would be helpful. I regret that I could not present morbidity comparisons along with mortality comparisons in my paper, but I submit that the mortality comparisons presented do throw some light on the relative portion of the unmet needs for medical care as compared with the unmet needs of our people for all other goods and services. In a nutshell, what industry has been as successful as the "medical care industry"?



B. C. or A. D. When a doctor saves a woman in childbirth, he just adds her name to the list of potential victims of cancer later on. Or if the doctor saves a laboring man with pneumonia, he is adding one more name to the list of potential victims of heart disease. Medical progress can only change the age and cause of death. Whatever strides medical progress makes, it can never be adequate for the family of a dying man. By reducing our infant and maternal mortality rates and by increasing our life expectancy at birth, medical progress has enabled a greater number of people to live to an older age. The health crises featured in many current articles on health is this: Too many people are too fat. I don't think I want to discuss that health crisis.

Our health progress has been so remarkable and has come so fast that there has not yet been time for the necessary adjustments in our social institutions. The very fact that more people live to an older age poses a problem for our society. As I have already noted, our population age 65 and over has quadrupled since 1900. If we are to truly enjoy the gains of our health progress, we must adjust our thinking to the problems of an aging population. Our aged population should become a productive and integrated part of our society. Employment and pensions must be provided for these people in such a way as to contribute and not detract from a healthy free-enterprise economy.

The "health" crisis is not the prevention of 325,000 deaths each year as Oscar Ewing claimed in his book on the Nation's health. Rather our "health" crisis today is the social crisis which health progress has created—by allowing so many of us to survive the diseases of childhood, youth, and middle age. The aging of our population and the "dying later" have combined to produce great changes in our way of life. It might be said that the real health crisis in the United States today is seen most clearly on the green benches of St.

Petersburg, Florida, where retired citizens congregate during the cold months of the year. The problem, in a nutshell, is to enable them to utilize the surplus retired years effectively and fully.

I omitted a comment at the beginning about who spends how much. The data available are only samples and many of the samples are defective. "What we know as men we must not forget as judges," said Mr. Justice Holmes, and his admonition applies here. We know as heads of families that when our children were being born and during their infancy and pre-school years our medical care expenditures were relatively high. I say relatively high because our income was relatively low while we were getting started in our profession or trade. Fortunately our family expenditures for shoes, clothes, and education were low when we needed a baby doctor. As we and our children grew older our medical care expenses gradually diminished as our other expenses increased and our income increased. Hence any study of who pays how much for medical care must take age into consideration. Young families are typically low-income families with relatively high medical care expenses. Any data on the relationship between family income and expenditures for medical care would, of course, be worthless if the age distribution of the families had not been standardized in advance. To my knowledge no good study meeting this test exists for any considerable sector of the American population. I would predict, however, that a national study would show, after excluding the highest and lowest income classes for technical reasons, that the percentage spent for medical care is almost the same in all income classes for families whose members are at the same ages. At the other extreme, a husband and wife during their retired years may face a relatively heavy burden of medical care costs, but that would occur long after the burden of rearing children had been paid.

# AN APPROACH TO EXISTING PROBLEMS OF FINANCING MEDICAL CARE

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This Nation is on the threshold of a new era in the growth and expansion of health services. In the past 10 years we have witnessed dramatic advances in the prevention, diagnosis and treatment of illness. And there is every reason to believe that in the next 10 years scientific progress in the development of new methods for the care of the sick and injured will exceed in importance those of the last half century.

At the same time that scientific advances have been going forward at an unprecedented rate, there have been other developments of equal importance. During the past decade we have increased our total consumer expenditures for health by almost three hundred percent. The increase of our expenditures of tax funds for health purposes has been even greater. Part of these increased expenditures are due to higher costs and a growing population. Even so, after allowances for these factors, the fact remains that we have allocated in the past decade a higher percent of personal and national resources to health than ever before in our history. These increased expenditures have made possible higher utilization of health services and higher standards of care. It is right and proper that we raise our expenditures for health and that we continue to increase our consumption of health services. One of the characteristics which has set America apart is our determination to give top priority to the health, welfare, and security of our people. Greater well-being and higher standards of living are the ultimate goals of our social and economic activity. Our decisions with respect to health must reflect these goals and they must be based on the proposition that the knowledge and skills which will advance our health standards is a public trust.

The economic problem facing us today is not unlike the "lag" we find in other fields of our expanding national life. It can be stated quite simply: We must find effective ways to close the "gap" between the level of health service currently being received by the majority of our citizens and the health services we now know how to provide. We should not be sidetracked into carefully documented studies on the extent of the gap. There is a gap and most of us are against it. Narrowing the gap between generally available health services and those we now know how to provide is a big task. The economic forces which tend to widen the gap are strong. The price of health services in our economy is growing and will continue to grow. Modern medicine costs more to provide because the unit of service is more complex and the types of illnesses have changed significantly. Only a few years ago the infectious diseases were our primary concern. But today, the chief causes of death—cancer, heart disease, and kidney disease—present increasingly complex technical, administrative, and economic problems.

These diseases commonly require the facilities generally found only in well-equipped hospitals and clinics and the combined skills of medical specialists, laboratory workers, X-ray technicians and other health specialists, as well as the services of the personal physician. It is the personal physician who must coordinate and evaluate the findings and relate them to the patient's social and economic life and his physical and emotional health.

There are other considerations we must take into account in our approach to building an expanding health service. One of these is increasing longevity. In specific terms, it is expected that the number of persons over 65 years of age will probably increase by more than 60 per cent in the next twenty-five years. We must bear in mind, too, that the general educational level of our people will continue to rise and that as it rises,



people will be more articulate and insistent in their demands for the highest level of health service attainable. Equally important is the expectation that the standard of living of the American people will increase by three to five per cent a year. These important considerations cannot be overlooked in making public policy decisions on the "tooling up" necessary for the health job ahead.

Since there is general agreement that a gap exists, we must focus attention on expanding health services to fill the gap. To do this we must create a climate conducive to a positive approach to problems—an atmosphere in which the various groups and individuals can work together. In this way, we can, in the best American tradition, agree on objectives and then hammer out methods for their accomplishment. The methods selected will necessarily need to be consistent with our tradition of individual responsibility and with our pattern of using government as an instrument for doing those things which we cannot achieve alone or as members of voluntary groups.

The "how" has two parts: The first involves a decision on methods for adequate financing and the second involves agreement that we must constantly review and reconsider methods for the most effective utilization of health personnel and facilities.

With respect to financing: The plain fact is that we are not allocating enough money to health services. Evidence of this is the national shortage of hospital beds; the need to modernize most hospital plants; and the shortage of professional and technical personnel. Another indication of under-financing is the retarded development of preventive services and of modern diagnostic and rehabilitation centers. Mental health and public health services are other areas of concern which need more adequate financing before higher standards can be achieved.

What proportion of the Nation's income should be allocated to health? What is the proper place of health services in our total standard of living? These are policy decisions which must be made in relation to other demands on our economy and productive capacity. They are not decisions for the technician but rather, questions which must be decided by the consumer group.

We have four basic methods for allocating funds to health: Patient payment at the time of illness, voluntary prepayment, tax allocations, and philanthropy. Payment for care at the time of illness

is less significant as a source of hospital and physician income just as it is in philanthropy.

The extent of tax fund allocations for health depends in large part on our ability to extend voluntary prepayment protection to income groups that now fall back on public sources for health care when a major family medical expense occurs and, in addition, on the extent that voluntary prepayment can include preventive and diagnostic services and long-term care. Even so, as standards of health are raised and public health services are increased and strengthened it seems reasonable that tax fund allocations will tend to expand.

The unpredictable nature of illness and higher costs of care have been motivating factors in the development of voluntary prepayment from a relatively unimportant source of income for health 10 years ago to a major source of income today.

In the next 10 to 20 years voluntary prepayment will become the major source of payment for hospital and physician services if the present rate of public acceptance of this method of allocating consumer expenditures continues. Public acceptance of voluntary prepayment plans is illustrated by the fact that in hardly a decade more than half the population of our country have sought such protection. Moreover, the number of persons so protected is growing at the rate of approximately one per cent a month. We have certainly had sufficient experience with prepayment to know now that it is an effective economic tool.

If voluntary prepayment plans are to achieve their potentiality as an economic tool they must serve as the basic method for the systematic and orderly budgeting of consumer expenditures for health; and as the source of income for financing health services not recognized as the responsibility of tax-supported agencies.

If we bear in mind that prepayment is still a new development (most of the present plans have been in effect less than ten years), the progress which has already been made toward meeting these criteria is striking. More specifically, the ultimate test of voluntary prepayment plans will be the extent to which they accomplish the following objectives:

1. Provision of comprehensive benefits, including the major portion of the cost of such expensive illnesses as cancer and heart disease and protection for the chronically ill and those with prolonged and costly illnesses;

2. Development of techniques for bringing into voluntary prepayment programs the entire employed population and their dependents and such other population groups as have personal resources to meet the cost of prepayment;

3. Creation of incentives by the voluntary prepayment plans for expanding health services in the direction of preventive and diagnostic services;

4. Provision of prepayment on an economical and efficient basis; and

5. Assurance of consumer representation at the policy making level.

These tests for measuring the ultimate validity of voluntary prepayment are not unreasonable when matched against specific progress in the past 5 to 10 years. To realize the full potentiality of the voluntary prepayment mechanism in financing health care will require a broad public understanding of the role of prepayment as a public service.

Official recognition of the existing voluntary prepayment plans by government would help materially in giving the increased support needed to accelerate their growth. One step toward such official recognition would be to permit government employees to participate in voluntary plans which meet specific standards on the same basis as employees in non-public employment—that is, by payroll deduction. Another step would be the provision of technical consultation services and other forms of government encouragement to the development of voluntary prepayment. Government might also explore the feasibility of arranging for payment of hospital-medical care for certain groups of public beneficiaries through the voluntary prepayment plans.

Assuming that voluntary prepayment will serve as the mechanism for financing the health service required by the employed population, there remains the problem of financing care for those groups which cannot pay for their own care—and the other necessities of life—under present methods of financing. In general, care for these groups is presently under-financed. Tax-supported agencies and private welfare agencies have not, for the most part, increased their payments for health care at the same rate that the cost of services has increased. The result is that care rendered to these groups is a serious economic drag on hospitals and other health and welfare agencies.

Specifically, these groups include the aged dependent, the disabled, the unemployed and other

groups that must depend upon public benefits for the necessities of life, including health services. Until we have met on some basis the problem of adequate financing of health care for these groups, our community health services will continue to be under-financed and standards of care will inevitably reflect this situation. There are few who will deny the need for more adequate financing of health care for these groups.

If we accept the pattern of financing which establishes voluntary prepayment for the families of the currently employed and which, through government assistance, provides some standard of care on essentially the same basis for the non-wage and low-income groups—we will close most of the existing gaps in financing care. There are, however, categories of illnesses and types of services for which government has assumed responsibility and which are available to various groups classified by income or such other categories as veterans' services, mental illness, tuberculosis, care of crippled children and the public health services. These services should be integrated to assure a comprehensive and coordinated community pattern, thus avoiding present gaps and exclusions, as well as overlapping and duplication.

With respect to improved methods for organization and distribution of services: the development of improved methods for organization and distribution of services constitutes a problem much more difficult to identify than that of more adequate financing.

Since the turn of the century improvement in the health care of the people has resulted from two broad advances in the field of medical science.

The first of these was the large-scale prevention of disease which followed the introduction of public health methods in the field of infectious diseases. The application of existing knowledge of sanitation and health education and the carrying out of large scale immunization, involving almost the entire population, were the implements in this effort.

The second main avenue of progress in health has been in the field of treatment. Examples of this advance are the sulfonamides, the antibiotics, the hormones, and the isotopes.

The next major area which promises to reduce mortality and morbidity is the field of prevention of disease—particularly those conditions which, when unrecognized, result in prolonged and needless chronic illness. To achieve progress in the solution of this problem, the approach must be twofold: First, there must be an intensification



of efforts in the development of tests which will aid in early detection of disease; and secondly means must be found to bring these new developments, in combination with those now in use, to the entire population of the country.

In order to realize the full potential of disease prevention in the individual patient, a reorientation will be necessary for the public, the health professions, and the prepayment plans.

In tracing the course of medical progress for the past half century, it is readily apparent that a new medical discovery of great potential benefit to the people is but the first step in a chain of events leading to its general application. In each instance, organization of the joint efforts of physicians and hospitals has been essential to insure widespread and economical application of the new health tool. Developments in such fields as radiology, laboratory diagnosis, vascular surgery, and the isotopes have required a reorganization of physician-hospital effort to insure maximum safety, effectiveness and availability to the public.

We now recognize, as a result of the great strides which have been made in medicine, that many diagnostic and treatment services require facilities and skills that often cannot be made available unless provided as a part of hospital or clinic services. Inevitably, the tendency has been toward greater utilization of the hospital for health services which might not have been provided at all, or if provided, would have been achieved less satisfactorily in physicians' offices or in the home. This fact accounts for a major part of the significant increase in out-patient services for paying patients which is rendered by hospitals.

The increasingly important role of technical procedures for diagnosis and treatment has occasioned experimentation in the organization of professional services. In some instances groups of physicians have organized themselves around hospitals with offices in, or in conjunction with, the hospital for the purpose of more economical use of their own time and of facilities and paramedical personnel. Some hospitals have explored the validity of employing physicians in order to provide an organized medical service. Actually, little is known about the long range advantages of such arrangements to both the public and to the professional personnel involved. The point of primary significance is that such experimentation is going forward and reflects the growing concern for the problem of organization of services.

Industry is investing substantial sums of money

to explore new methods for producing a better unit of service or product at a lower cost. Similarly, if a better health service at a lower cost can be provided through research in organization and administrative methods, we are compelled in the public interest to conduct such research.

When the infectious diseases were a major cause of ill health and death, we learned that individual physicians acting alone could not effectively control their spread or apply effective preventive measures. Through tax funds, local health departments were established to apply scientific knowledge to the problem, and virtual elimination of many infectious diseases as a cause of death resulted. Mass public education programs were developed, children were immunized, and water and milk supplies were made free from disease-carrying bacteria. The result was spectacular. To provide only one illustration, the typhoid mortality rate fell from 26.8 per 100,000 population in 1900-1904 to 0.6 in 1942.

Today, with only two of the first five causes of death the same as those which prevailed in 1900, we have a new problem in disease detection and control. Louis I. Dublin, second vice-president and statistician, Metropolitan Life Insurance Company, in his book, *The Facts of Life*, says with respect to cancer, the cause of one-seventh of all deaths, "It has been estimated that with present medical and surgical techniques, mortality from cancer could be reduced one-third from its present levels by early detection of more cases and by increasing the availability of adequate treatment." If this statement is true, and if it can be made with respect to other causes of death, the administrative problem of organizing our skills for more effective use is one to which we should continuously direct our attention.

In the past few years a technique has been developed and tested in a few communities for mass screening for disease detection. Although the experience with these community-wide efforts has been limited, they are an attempt to reach entire segments of the population with a low cost disease detection program. Without attempting to evaluate the case for these multiphasic screening programs, they illustrate research in the field of new methods and are suggestive of the possibilities of new patterns of organization of skills and techniques to meet present-day as well as future health problems.

From an economic point of view as well as from that of the health profession, it will be necessary

in the years ahead to find the least costly methods for keeping the population well and for treating illness early in the course of disease. These methods, maintained at a level consistent with high standards of professional and personal service, must be developed if we are going to expand our health services to meet the problems that are emerging.

Future personnel requirements, as a matter of public policy, must be geared to our concept of the kind of service we are developing and the level of care that is socially desirable. Additional health personnel are undoubtedly necessary as we expand health services through more adequate financing and through raising of our over-all standard of health care. Increasing the supply of personnel is a part of the "tooling up" job that is ahead. The allocation of financial support to training is a decision on priorities that can be made only in relation to other health needs and resources. The role of government in financing and extending training facilities is a policy decision before the American people.

Expanded research effort, particularly with respect to diseases of major social and economic significance and with respect to administrative methods, must be pushed forward. Through research we must learn how to prevent illness as well as how to apply our knowledge of prevention in a manner which brings it within reach of all

people. Knowledge that is not translated into services, evenly distributed to the largest possible number of people, is without social and economic value. Technical research on causes and treatment of disease must be accompanied with a like amount of emphasis on administrative procedures. The laboratory for research efforts in the field of health must be world-wide and must encompass the social and cultural influences, the physical and mental. This is not a job voluntary groups can do unaided. It requires the combined efforts of our total research resources throughout the world.

And finally, a look back at the health service developments of the past fifty years—and more particularly at the last ten years—and a look forward at the possibilities in the next ten to twenty-five years will help give the perspective necessary for the decisions which present problems make imperative. Without this perspective there is danger that we shall think too narrowly and in a manner which is merely expedient. Health planning requires that we think in terms of what our health job will be ten to twenty years from now so that decisions made today will provide the basis for continuous progress. If we do this there can be only one course of action: Build on what we have today, to the end that the best in health care will be accessible to all the people throughout the country.



# WHEN SICKNESS STRIKES A FAMILY

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My presentation deals with a cross section of neighborhood experience with medical needs and costs—based on first hand testimony of 553 families with incomes ranging from less than \$2,000 to \$6,000 a year.

Years of working and living in a low-income neighborhood are bound to bring awareness of where life presses hardest. Settlements know only too well how sickness dogs the footsteps of working people and their families. Except for unemployment no other common problem ranks with it.

Lack of decent shelter and dread of old age are runners up. Since World War II, housing has moved into acute concern. Fortunately, this year an extension of our National Social Security System has brought more adequate and more widely spread protection to the aged.

During the depression years, it was lack of jobs which overshadowed these and every other human need. Since then, Federal-State Unemployment Insurance and Employment Services have helped to cushion households and communities against the ups and downs of work. I'm sure many of those who fought against their enactment in the 1930's were glad to have them sustain purchasing power during the business recession in 1948-49. In those years in our neighborhood we again began to hear women say, "He's out of a job," and it was an infinite relief to know that the family would have something to fall back on while "he" hunted for work.

This constructive legislation has done much to take the edge off the hazards of unemployment—but Americans have yet to lay that other spectre of sickness and its costs.

From time to time neighborhood workers test out their daily impressions by means of sampling studies or surveys, which discount or reinforce, as the case may be, any conclusions drawn from such

intimate experience. Over the years we have done this repeatedly with respect to medical care because the need for such care has been so omnipresent in the lives of our neighbors.

Once again, checking our first hand experience, we must break with the crescendo of reassuring pronouncements by organized medicine, and by other interested groups, which would have the public think that things are much better than we find them.

Right now, in spite of the spread of various forms of voluntary health plans, the day by day needs for medical treatment we confront in our neighborhood are not being met in an overall way that is either humane or statesmanlike. Lip service is paid to preventive medicine but the obvious place where it should start is largely ignored. That is in the homes of those who most need it and can least afford it.

Too many of the rest of us do not see, or will not admit, that health services are piecemeal and chaotic, and that we are leaving economically handicapped families to pick their way in and out of this chaos as they search for help in keeping well. They grasp at various health plans that will protect them at one point or another—hoping that with luck their policy will cover the days spent in the hospital or that a cash indemnity will cover costs—or that the insured member of the family will be the one sick—or that the cost of having a baby will fit into the maternity benefits.

On the one hand, we have been aware that an increasing number of families, especially in the higher income brackets among our neighbors, have come to help meet hospital bills through health plans.

On the other hand, we are acutely conscious of many families about us, in and outside of health plans, who do not feel free to call or go to a doctor before bronchitis turns into pneumonia, or a small lump into cancer—or to go to the dentist before an extraction is necessary. With the spread of life-saving but very expensive drugs, the bills for them loom painfully out of reach of the pay envelope. At the same time that the cost of eye care and eye

glasses has risen, comes the increased knowledge of their crucial importance.

Last year at Henry Street Settlement, on New York's Lower East Side, we endeavored to get a current blueprint not only of what medical and dental care and drugs are costing our neighbors, but also how far voluntary health insurance plans of various kinds have reached down into our neighborhood and how much protection they assure.

Altogether we interviewed 732 families and these yielded 553 schedules which we used as a basis for our findings.<sup>1</sup> They included members of our adult clubs and the parents of children coming to Henry Street. Lest this should prove too selective, we made a door-to-door canvass covering two square blocks.

We realized that whatever the results, they would probably present a more favorable picture than might be found generally, because the people of the Lower East Side of New York have more access to health facilities than many urban, as well as rural communities, the country over. They have been more subject to education in mutual protection against sickness and a pioneer experiment in voluntary health insurance, the Corlears Hook Medical Association, was carried on for three years in our immediate neighborhood.

Of the 553 schedules studied 13 percent fell in the lowest income level of under \$2,000 a year—three-quarters (76 percent) fell in the \$2,000–\$4,000 brackets; the remaining 11 percent were at the top of our scale in the \$4,000–\$6,000 brackets. It should be borne in mind that these were family incomes and a large proportion especially in the higher brackets depended upon more than one wage earner in the family. The occupations covered a wide range: letter carriers, post office clerks, shipping clerks, taxi drivers, truck drivers, electricians, firemen, janitors, painters, policemen, salesmen, shopkeepers, stenographers, bartenders, waitresses, garment and other factory workers.

On the whole our inquiry covered employed, self-respecting people, eager to be on their own and self-dependent. Such families are aware that sickness is no respecter of provisions in a health plan. On the other hand their experience with sickness has been a bitter teacher and we have seen them turn to plans with limited provisions

when these seemed to be all that was within reach.

The Health Insurance Plan of Greater New York, familiarly known as H. I. P., comes nearer to giving the kind of medical care that families need and long for than any other in the community. This plan provides for complete diagnostic examination, unlimited surgical, medical, and maternity care in the hospital, at home, and in the doctor's office and, most important, continuing preventive services. Also for visiting nurse and ambulance services. Hospitalization is included through a working arrangement with the Blue Cross. The whole family can be covered. However, drugs are not included—nor dental care.

These provisions come nearer to those in the insurance section (Title VII) of the long pending National Health Bill than any other available in New York. Under existing voluntary plans, however, eligibility is almost always limited to employed groups, approximately 60 percent to 75 percent of whose members must enroll, and this high enrollment usually depends upon the willingness of the employer to share the cost. This method eliminates from coverage a high proportion of lower paid and casually employed workers. Experience shows that managements which have already obtained good wages are those which secure this type of benefit in collective bargaining.

While it is true that certain policies are open to individual enrollment, these coverages are comparatively expensive and honeycombed with limitations.

Another provision of the National Health Bill highlights one of the chief shortcomings of the presently available plans. Too often all that is provided is an indemnity benefit—a certain amount of cash. Rarely do these sums cover the doctor's or hospital's full charge. The insured is still unable to foresee what the costs of any sickness may be. What families need are "service" benefits, under which the insured receives the doctor's or hospital's service in return for his premium and is not subject to any extra charge.

In spite of what might be considered a favorable climate, only 11 families out of the 553 had the comprehensive protection supplied by H. I. P.—3.4 percent of our families were served by it, and only half of these had policies covering the whole family. For the rest, as the families reported:

15.8 percent were covered by the Blue Cross for hospital care only, with three-fourths of its policies embracing the whole family.

<sup>1</sup> We discarded 85 schedules where income or other data was not complete, and nearly as many more where the family was on Home Relief, as the New York City Department of Welfare has a system of medical care for its clients. Fourteen of the families earned more than \$6,000 and as the income brackets to be studied stopped at that—these, too, were not included.



9.6 percent fell under industrial plans which were reported as established by employers—two-thirds of which covered the family.

9 percent had plans which were reported as established by unions, less than half of which covered the whole family.

5.9 percent had "sick benefits" in some kind of fraternal organization with half covering the family.

3.1 percent carried Blue Shield which contracts with physicians to serve on a fixed-fee basis. If the subscriber is in a very low income bracket, almost all these contracts cover the whole family.

2.2 percent were insured directly by commercial insurance companies, more than two-thirds of them covering the whole family.

To sum up, something less than half of our families scheduled (48 percent) carried voluntary health plans in some form or another, approximately three-fifths of these without covering the whole family—and something more than half of the families (52 percent) had no plans at all. Such percentages indicate both the lack of thorough going protection for families and the lack of orderly planning on the part of the community. They also show how widespread the fear of sickness is and how families reach out for some way—however piecemeal—to cope with it.

Back of these figures is great confusion. Few of the families we talked to had a clear idea of what the plan they had would do for them, how it protected them and from what. As one woman put it, "You better read that small print or you'll be pretty surprised when you're sick." The reply of another was, "I don't understand it when I do read it." The trepidation that most of us, at some time or other, have felt in facing "small print" on a contract should give us a fellow-feeling for these folks as they weave their way in and out of the complications of trying to get protection against sickness.

Reports given out as to the large number of subscribers to this voluntary health plan or that are pointed to as showing how large a share of the American people are now covered by voluntary health plans. These plans have shown impressive growth and do afford important protection at salient points; but the conclusion too often drawn

is that low-income families are much more widely and more fully served than they really are.

And the pity of it is that these figures are apt to give a false sense of security, for it is insurance for comprehensive care with the advantage of preventive medicine that families need. True, 48 percent of these 553 families of ours had tried to protect themselves in some way against sickness, but less than 2 percent had succeeded in getting adequate coverage of at least medical, if not dental, needs for the whole family.

Another factor that concerns us is that as the family income goes down even this partial coverage afforded by voluntary plans goes down with it. Of families with incomes between \$5,000 and \$6,000 76.5 percent had taken out some form of insurance, while only 39.2 percent of the families earning \$2,000 to \$3,000 had managed to do so.

Further, 74 of the families interviewed were found to have dropped their policies. Of these 68 had incomes of \$4,000 or less. Twenty-three said this was because they could not afford to keep them up; fifteen because they had changed jobs and lost the plan in the process; seventeen because the plan they had participated in was discontinued; thirteen felt that the plan did not fit their needs; six gave no reason.

Almost invariably discussion of illness in clubs and even more in informal exchanges brings up "how many things you can have" that do not come within the particular insurance coverage you've "taken out." Because we had heard this so often, we asked about sickness expenses that families had had to meet over and above their health insurance payments. Not all could make estimates but enough did to more than warrant the inquiry. A third of the replies ranged from \$100 to \$400 a year and in a few cases the total for outside bills ran up to \$440, \$500, \$680, and in one case \$1,000.

For the most part sickness costs had to be drawn from memory on the part of the people concerned. However, those were important outlays in the past year—talked about, worried about, the subject of family consultation and planning. The cost of a particularly serious illness will be referred to years later in all its details. Families took great care to answer our questions to the best of their ability. The tendency seemed to be to forget some expenses rather than to exaggerate them; but major items, such as doctors' and hospital bills seemed harder to forget than to remember. There were some families in each income group, however, who felt

that they could not give an accurate enough accounting and their expenses did not enter into our over-all totals.

There were altogether 156 families with earnings between \$3,000 and \$4,000 a year. While among the insured families one had outside expenditures reaching \$1,000 in the \$2,000-\$3,000 group, a similar total was reported among noninsured families in this medical group. On the other hand, 15 families could not estimate their expenses, and 14 were fortunate enough to have had no bills. Medical expenses for the year, of the remaining 127 families, totalled \$18,447. They ranged as follows:

Families	Expenses
14-----	0.
28-----	Under \$50.
35-----	\$50 to \$100.
20-----	\$100 to \$150.
11-----	\$150 to \$200.
10-----	\$200 to \$250.
3-----	\$250 to \$300.
8-----	\$300 to \$350.
2-----	\$350 to \$400.
3-----	\$400.
2-----	\$500.
1-----	\$575.
1-----	\$660.
1-----	\$700.
1-----	\$800.
1-----	\$1,000.

Just under half of our families earned between \$2,000 and \$3,000. Of these 265 families, 25 felt they could not estimate their expenses and 29 had no bills. The remaining 211 families had expenses totaling \$25,842, classified as follows:

Families	Expenses
29-----	None.
74-----	Under \$50.
56-----	\$50 to \$100.
25-----	\$100 to \$150.
13-----	\$150 to \$200.
14-----	\$200 to \$250.
6-----	\$250 to \$300.
3-----	\$300 to \$350.
1-----	\$350 to \$400.
9-----	\$400 to \$450.
1-----	\$450 to \$500.
4-----	\$500 to \$550.
1-----	\$700.
1-----	\$750.
1-----	\$1,000.

There were interesting comparisons to be made between highest and lowest income levels. There were 46 families between \$4,000-\$5,000 and 17 between \$5,000 and \$6,000; or taken together, 63 families between \$4,000 and \$6,000. This com-

bined group of 63 families reported spending \$6,545 on medical care that year.

This was over twice as much as was spent by 69 families in the lowest income group under \$2,000. Their total came to \$3,065.

Our figures on the use of clinics are significant at this point for they revealed that two-thirds of the under \$2,000 income families made use of clinics—whereas only one-third of the \$5,000 to \$6,000 families turned to them.

This illustrates how some of the needs at the lowest income level are met. But even at their best, clinics cannot take the place of general medical care. These families, above all—whose food and shelter and clothing are least adequate—need to be able to call or go to a doctor when sickness strikes. Clinics or accident wards are hardly the answer when a household is afflicted by a respiratory infection, many children's diseases or sudden acute symptoms at any age, and most clinics are a far cry from preventive medicine.

Even where the medical situation is one that fits clinical treatment, there are human disadvantages which weigh heavily against the very people whom clinics are meant to protect. One of these is the too often frightening impersonal treatment from social worker, nurse or doctor. The more helpless or ignorant the patient, the more they need and crave reassurance and explanation.

The hours clinics are held are difficult for the wage-earner who needs medical care and cannot take time off from his job to attend. A mother is disadvantaged who cannot leave her other children to take the sick one to the clinic, and she may have to wait long hours with them clinging to her skirts. Underneath it all is a widespread embarrassment in accepting what is given as "charity."

Altogether the 553 families reported expenditures for doctors' and hospital bills and insurance coverage of \$53,899 and an additional \$6,519 for eye care—making a total of \$60,418. It is to be remembered and emphasized that this was exclusive of amounts reported for dental care and drugs.

According to our schedules, 25 had not spent enough for drugs to report on it while 111 felt they could not estimate the amount. According to the remaining 417 families, they had spent altogether \$20,757 on drugs during the year or an average of \$4 a month each. Clearly no plan for medical care can be wholly sound without



taking into account necessary medicines. This would be true even if this average of \$48 a year came to rest evenly on every family. What actually happened was that 92 of the families spent from \$75 to \$360 in 12 months. Obviously we must reckon with "catastrophic" drug bills which drain the family purse at the same time that other emergency expenses pile up. One woman told of waiting a week to pick up the prescription which her doctor had given her, until she had the money to pay for it.

Some of this spending is no doubt ill-judged and for much advertised cure-alls which often meet with eager trial when sickness is fraught with so much anxiety.

In asking our neighbors about their dental care, done or left undone, we were getting into a field that most insurance plans have yet to explore. Here if anywhere we need community planning and direction if we are to bridge the gap between scientific knowledge and skills and the household needs in such a community as ours. Only systematic dental care in our public school system could bring dental progress to bear universally in the growing years that count for most.

Because it is easier to put off care of the teeth, we found even greater disparity between the total \$2,868 which 37 of the 69 families in our lowest income group spent for dentistry in a year, and the \$8,005 which 51 of the 63 families in the upper brackets paid in dental expenses.

Average annual dental costs per family go up from \$46 at the lowest income level, under \$2,000; to \$76 per family at \$2,000 to \$3,000 a year. They rise to \$86 in the \$3,000 to \$4,000 group; to \$121 at \$4,000 to \$5,000 a year; and to \$175 at \$5,000 to \$6,000. As high as \$600 was paid by two families.

The overall total of dental bills reported ran to \$42,489. As an example, in the largest group, families with incomes between \$2,000 and \$3,000, dental costs ran as follows:

#### \$2,000-\$3,000

265 families—average dental cost \$76.

18 could not estimate.

7 neglected due to cost.

1 stopped at \$25 due to anticipated future cost.

1 stopped at \$40 due to anticipated future cost.

1 stopped at \$60 due to anticipated future cost.

2 stopped at \$75 due to anticipated future cost.

1 stopped at \$100 due to anticipated future cost.

48 had had no bills.

186 had remaining bills totaling \$18,471.

Families	Range	Expenses
55	-----	None.
57	-----	Less than \$50.
53	-----	\$50 to \$100.
33	-----	\$100 to \$150.
12	-----	\$150 to \$200.
13	-----	\$200 to \$250.
8	-----	\$250 to \$300.
4	-----	\$300 to \$350.
3	-----	\$350 to \$450.
3	-----	\$450 to \$500.
1	-----	\$510.

Among our 553 families, the year's over-all total for medical and dental and eye care plus drugs came to \$123,664.<sup>2</sup> The significance of this outlay lies in what the families got or did not get for it.

Only 11 of them received comprehensive medical care for all the family. Little reached them that could be called preventive care. There was almost no sharing in today's great advances in psychiatry. Worry, insecurity and fear entered into their bouts with sickness. It must never be forgotten that when an employed worker becomes sick the economic loss is twofold—his wages stop at the same time medical costs mount. Even when he is fortunate enough to receive benefits they do not take the place of wages in amount. A few States, including New York, have made beginnings in disability insurance but there is no country-wide coverage yet.

More illuminating, and more poignant than our statistics, have been the comments and stories which reached us. Continued and drastic criticism of treatment in clinics stood out. Also the frequent lament, "I didn't know where to turn when I needed a doctor." Repeatedly there was warm appreciation of both kindness and successful service rendered by particular physicians in the neighborhood, in clinics and hospitals and in specialists' offices. In truth, nowhere is the doctor-patient relationship prized so highly as in neighborhoods where it is hard to come by and where studies show that only a third of the patients can lay claim to its comfort.

Our own study would certainly indicate that these families and those in like circumstances are without easy access to that great body of medical protection which can be had for the buying. This should not be the only criteria in a democracy which has safeguarded people against such major hazards as unemployment and old age. By

<sup>2</sup> Exclusive of medical expenses unestimated by 63 families, drug expenditures by 111, and dental expenditures by 36.

strengthening such families on this front—when sickness strikes—our country would be strengthening itself.

Florie Minsky, age 6, fell and fractured two bones in her wrist while in play-school. Because her mother once had a bad experience in a clinic she rushed the little girl uptown to a doctor she knew. As she had no one with whom to leave Florie's two younger sisters, ages 4 and 3, they had to go along, too. She took a taxi with the three little girls to the doctor and he took an X-ray of the fractured wrist, put on a temporary bandage, but did not want to set it, and so sent them on to a surgeon whom he recommended. The surgeon wanted \$150 to set the wrist, but finally said he would do it for \$75, only he must have the money in advance. Mrs. Minsky said she didn't have it, but would borrow it and bring it to him the next morning at 11 o'clock.

She left little Florie in the hospital and went back home. She had been going with the little girls—broken wrist and all—from one o'clock until six. However, as soon as she had fed the little girls she went out to borrow the \$75 in the neighborhood. She "got a little here and a little there". One neighbor came in while she was out and left \$10 on the kitchen table. By the next morning she had the \$75 and met her 11 o'clock appointment, money in hand.

Then at the hospital she was met with a \$62 hospital bill which they told her she must pay before she could take the child home. This bill was finally vouched for by a social agency and she brought the little girl home and relieved the neighbor who had been minding the other children for her that morning. She still had to pay \$10 for the X-ray and \$5 for the office visit to "her doctor", so that all told, not counting carfare and taxis (and another X-ray later) the accident had cost her \$152, or approximately what her husband earned in 3 weeks. He is a truck driver earning \$55 a week, and he had just been covered by some kind of insurance policy but she had no idea how it operated and whether it covered the children. The five of them lived in two tiny but spotlessly clean rooms. The parents sleep in the kitchen on a bed they fold up in the day time. Mrs. Minsky had telephoned her husband's employer when the child was hurt, but she didn't leave any word about the accident because she was afraid it would "upset" him. As a truck driver "he shouldn't be nervous because he could have an accident and hurt someone".

This is Anthony D'Alessio's fifteenth year in municipal service and he was one of the first to join when the Health Insurance Plan of Greater New York was thrown open to city employees in 1947. With the city meeting half the expense, his share at that time was \$5.10 a month—covering himself, his wife and their three children.

Every two weeks when working his check read "\$102 at the top"—but what with deductions for taxes, pension and H. I. P., this pared it down to \$85 in take-home pay. Half a month's rent at \$17.50 left Mrs. D'Alessio \$67.50 a fortnight to budget for the other household expenses for their family of five. These included food and clothing, the father's carfare, medicine when necessary, all other incidentals—and "extras" beyond ordinary running expenses. And also, if possible, movies or other entertainment for the children.

They fell back on the Pension Loan Plan offered to city employees—under which Mr. D'Alessio could borrow for a major purchase, or to replace the children's clothes from time to time. The habit of the D'Alessios was to plan ahead just what they needed in amounts varying from \$100 to \$300 a year. A loan was advanced, they made the purchase, and there was usually about two months before the paying-back must begin—giving them a chance to enjoy it free of worries. Thereafter, regular amounts agreed upon (including interest) were deducted from his two-week salary checks. As these were small, payments might go on for months. "That way we didn't feel it," the D'Alessios explain, and these loans and the opportunities they provided became an important part in the economy of the family.

The D'Alessios managed pretty well over the years under their scheme of budgeting. H. I. P. fitted into this because it functioned in much the same way.

Before they joined, the family had often resorted to free clinics for medical treatment, and unlike most of their friends and neighbors had no strong objections to them. As Mrs. D'Alessio put it, "They tell me I'm different, but all the same I got a lot of good things to say about the clinics. Sure you got to wait, but you sometimes got to wait two or three hours sitting in a private doctor's office. My time isn't money, so this way a clinic's free. You think I can afford to buy these nose-drops, or that cough medicine?" she asked, holding up two bottles her young son was using for his cold. "The clinic gave him those. But it's a funny thing," Mrs. D'Alessio went on, "They're



awful good with the children, but they won't do much for me." However, she recalls favorably two nose operations she underwent without cost at a city hospital—and "they treated me good".

Two years ago when the father fell seriously ill the D'Alessios budget plans began to buckle. Even H. I. P. did not bring them out of the troubles they were about to go through.

The D'Alessio's problem lay in the fact that the breadwinner's illness had dragged on and he had consequently been out of work the better part of two years. Everything changed, and the D'Alessios had to adjust to a new way of life.

At the start—their H. I. P. doctor diagnosed a bladder tumor, recommending an operation which Mr. D'Alessio underwent. A month later H. I. P. had paid for all his expenses except \$20 for anesthesia and \$43 for hospitalization beyond the allotted span. Meanwhile, there was no break in Mr. D'Alessio's salary and he was shortly back to work. It soon became apparent, however, that his bladder trouble would confine him to home too often. He was asked to resign with the understanding he could have his job back when he got well.

The city salary checks kept up for two months after this, and "then they put us on relief," Mrs. D'Alessio explains. "Things have never been right since." Relief checks now came every two weeks, but their rent was increased from \$35 to \$38.

For two years now, the D'Alessio's have fallen behind on their pension payments which will have to be made up when Mr. D'Alessio goes back to work. Meanwhile, they could no longer turn to the Pension Loan Plan. "We can't get out of holes that way anymore," said Mr. D'Alessio. Friends loaned them money to buy clothing for the children. "I owe my next door neighbor \$40 right now," said Mrs. D'Alessio.

Nor did the D'Alessio's now have the benefit of city help in meeting their H. I. P. fees, and they dropped the hospitalization payments. But they managed to pay \$26.80 due on the remainder of the H. I. P. bill. It was hard to get together quarterly payments every three months; yet they clung to their membership in the plan, thinking that Mr. D'Alessio would be back to work soon and knowing that H. I. P. was costing them far less than the services of a private doctor.

Throughout these months the D'Alessio's had great difficulty making ends meet for the current household expenses. Their 14-year-old son—"he's now almost six feet tall—eats up everything almost

as soon as I get it in the house," Mrs. D'Alessio smiles. Besides their household expenses, the D'Alessio's had to buy drugs necessary to Mr. D'Alessio's recovery. At the start he saw his H. I. P. doctor three times a week and each visit meant an expensive penicillin shot. After a time the doctor "changed him to pills" and he is still taking them—two sets which last him a little less than a month. One bottle costs \$8, another \$3.

Mr. D'Alessio had had the same H. I. P. doctor from the beginning. When this general practitioner left the country for an extended trip, his patient was assigned to a neurologist who recommended somewhat different treatment. Mr. D'Alessio feels that there was a marked change in his condition for the first time. "Maybe I just imagine it, I'm so anxious to get back to work, I don't want 'em to forget about me."

The "relief" doctor, supplied by the Department of Welfare, came to their house on occasion, but the D'Alessio's never took to him. The mother continued to go to a clinic so that she could get medicines free. When she had to call the H. I. P. doctor to their home for the children she often could not pay for the drugs he prescribed. "Doctor, I'm sorry," she would say, "but I just can't. But I can get it when my check comes." Mrs. D'Alessio had to say the same thing to her grocer, her butcher, and the pharmacist who supplied Mr. D'Alessio's medicines.

After the D'Alessios stopped paying that part of their H. I. P. bill which provided for hospitalization, Mrs. D'Alessio needed this service badly. She had suffered from allergy and asthma in a mild form which did not become serious until her husband was out of work. "They say it's nerves", says Mrs. D'Alessio, voicing a familiar phrase. Her difficulties in breathing and in digesting her food finally put her to bed. Her H. I. P. doctor gave her prescriptions and recommended an apparatus to facilitate her breathing. Mrs. D'Alessio was up and down, better and worse, and finally was taken to the city hospital one night when it was extremely hard for her to breathe. "For 72 hours she was in a coma". She likes to tell about the consultant called in who recommended "one of those new miracle drugs. They got me well and I haven't had a bit of trouble since".

"If my husband's trouble would only stop," Mrs. D'Alessio sighed, "Who wants to stay on relief?"

Just before Mr. D'Alessio had to quit work, payments began to come due on \$300 he had

borrowed from the Pension Loan Plan. "We got that loan to pay back," as he reckons it, "and we got to catch up on the pension besides. If I don't get back to work soon and get that started again we'll never have it to count on in the end".

"We were lucky, I guess. We were able to help ourselves!"—That is how Fannie Davis describes her husband's long illness which began on the first day of their honeymoon more than three years before when he had his serious attack of "kidney trouble". Since he was a veteran, he was able to go to a veteran's hospital in the city in which they found themselves. There he stayed for three weeks. The Davis' had only allowed for a wedding trip of a week but had lost two weeks of salary and Mrs. Davis had spent three weeks alone in a strange city before he was well enough to travel.

Mrs. Davis asked the doctor if her husband would have other attacks, and what she could do to prevent them. In her own words—"What can he eat in order not to grow stones?" The answer didn't help much. "I didn't give him spicy foods, like the doctor told me, and he didn't drink, but that's all we could do".

So the Davis' "just met each attack when it came". This was expensive—for a clinic was of no use to Mr. Davis. "When he got an attack," Mrs. Davis explained, "it was so bad that something had to be done right away". From time to time in the next three years her husband would have such attacks about once a month. Each required an emergency shot costing \$5, plus \$3 charged for the office call it involved, or \$5 if Mr. Davis "was so bad" that the doctor had to come to their home. "Sometimes," Mrs. Davis said, "when we were short, the doctor wouldn't charge us for the office call—just for the shot". He also had to have three X-rays at \$15 apiece during this time.

When the Davis' couldn't "make room for such expenses" out of his weekly earnings, \$55, a week, they resorted to their savings. These, at the start, amounted to about \$600, most of which had been accumulated by Mr. Davis during his years in the service. "He's no spender," his wife says. Mrs. Davis also had bought \$75 in bonds when she worked in a navy yard during the war years. In addition to the medical expenses for her husband, there were maternity expenses during the second year of their marriage. These were paid for out of their savings and amounted to \$400. As Mrs. Davis explained, it was almost impossible after

that to accumulate again. "Our savings were from a long time back," she said. "Any savings you have now are going to be like that". However, they had decided not to seek help from hospitalization as a veteran because of what Mr. Davis had considered rough treatment in a veterans' hospital.

So, soon after the baby was born the Davis' decided to join Blue Cross. This costs them \$3.75 a month. It came in handy on Labor Day last year, when, in the middle of the night Mr. Davis had such a serious kidney attack that his wife called an ambulance to take him to the hospital. Ten days later, Mr. Davis' doctor decided to operate. "He's a wonderful man," Mrs. Davis says, "The operation ordinarily costs \$375, and he charged us only \$125." They paid for this in advance and that, too, came out of their dwindled savings.

Mrs. Davis had to pay, also, for the anesthesia which the Blue Cross did not cover. When told that this would cost \$25 and must be paid in advance, Mrs. Davis, who had only a little money with her, left that with them, and next day borrowed the rest from her husband's sister. "I paid it right back," she said. When asked why she didn't get it from the bank where the last of her savings were, she said, "When you have a little baby you can't do things just when you want". She couldn't get to the bank in the few hectic hours before the operation.

Mr. Davis was in the hospital for nine weeks. The Blue Cross paid for 21 days of hospitalization, and after that met half the expenses. During the remaining weeks, the Davis' spent \$80 themselves and the millinery union to which Mr. Davis belonged provided the rest. Mrs. Davis was lucky enough to get the three blood transfusions her husband needed from friends. She went to the hospital every day. Her carfare was 20 cents and in addition, as she put it, "I had to take him a little something when I'd go".

It was after nine o'clock one Saturday night when the youngest of the Lawson's three daughters developed a fever of 104 degrees. For six months the family had belonged to the Health Insurance Plan of Greater New York through Mr. Lawson's employment in the city—but had no occasion to make use of its services.

This was why Mrs. Lawson first scurried around the neighborhood in search of a physician, but the hour had become late and she failed to find one. Only then she thought about H. I. P., telephoned



and "we got a doctor in fifteen minutes". "That's the way it's always been," she says. "When I need a doctor now I can get him immediately. It's worth the money to me."

An H. I. P. ear specialist treated the daughter for an abscess, and later when she had an infected finger the mother took her to a general practitioner in the H. I. P. group. "He said he 'wouldn't touch it', and right away sent my daughter to an H. I. P. surgeon."

Last New Year's Eve Mr. Lawson had trouble in his thigh, and went to their H. I. P. physician whom the Lawsons had begun to call their "family doctor". He advised surgery, but because of the holiday, there was no surgeon available. "George could have waited, I guess," Mrs. Lawson says, "but it was paining him, so when he got home that night he went to a private surgeon in the neighborhood. "But," as she put it, "he cut my husband wrong". When the holiday was over, Mr. Lawson went again to their H. I. P. doctor who "got a surgeon to fix everything". He not only repaired the incision, but arranged with H. I. P. to refund the \$10 Mr. Lawson had paid for the earlier operation.

For the next month, Mr. Lawson needed penicillin once each day, and it was at this time that Mrs. Lawson found out about the reduction in the cost of drugs to be bought at the H. I. P. office, and about the pharmacist there, who makes up prescriptions at special rates. She discovered that baby oil was sold at \$2.59 instead of \$3.76 which she had been paying at drugstores.

When Mrs. Lawson had her youngest child the family paid medical bills of \$136 beyond the \$80 allowed for by Blue Cross (the collaborating plan). Mrs. Lawson explained that this was because her H. I. P. doctor put her in an expensive hospital. "But it was worth it," she adds. Mr. Lawson borrowed \$60 from his Civil Service Credit Union, chipped in money he had won on a ball game, and took the rest out of savings earned by odd jobs done in his spare time. "He's the thrifty one," says Mrs. Lawson.

Ruth Lawson tries to do "right by" her children. She is sending one daughter to dancing school because "she's so shy and quiet". For another, who stutters and is nervous, she wants to get psychiatric help—which is outside the treatments supplied without charge by H. I. P. She had just spent \$22 for fillings for one daughter, and said that she herself needed to go to the dentist for plates. So she wishes H. I. P. offered dental

benefits, too. These she would like to pay for in the same way as she pays for hospital and medical services. This she feels she could do, as her rent is only \$30 a month and she has a weekly budget of \$60 on which to feed and manage her household of five, and pay for incidentals and clothing.

When Mrs. Healy fell and injured her leg 20 years ago, she was a young woman. She "rubbed it a little," got up, brushed herself off, and went on about her work. The pain did not bother her much and it was almost 15 years later when Mrs. Healy's leg began to trouble her again. Her knee swelled up and she noticed that her leg was growing crooked.

The Healy's did not have much money for medical treatments out of Mr. Healy's \$50 a week with four children to support, and none of them old enough to work. Mrs. Healy went to a clinic from time to time for treatments for her leg, and once went in the city hospital for a week, but there was never any improvement. She finally became resigned to having a crooked leg for the rest of her life.

During this same year, she began to have "stomach trouble". This became so serious that Mrs. Healy, who had begun to accept the fact that her leg would never be straight again, now forgot about it in the more acute distress. "It got so I was in bed more than I was out on the floor." She finally went to a clinic for help for the stomach. X-rays were taken which cost her \$27.50, and she was told she had ulcers.

As her condition did not improve she went back from time to time to the clinic, as well as to private doctors when she had the money. These latter visits cost her \$2. If she was too sick to go out, the doctor charged \$3 to come to her home. In desperation Mrs. Healy once spent \$50 for X-rays done in a private doctor's office. "My, the weeks I spent paying that off" she recalls. "I'd give the doctor \$2 on it every week I could. Sometimes when I was in pain," she goes on, "I'd just stand it, because my husband didn't have the money to pay a doctor. The children were having dental work done at the time and the expenses for this took any extra money they had, and, their teeth seemed more important".

This went on until three years ago when Mr. Healy joined H. I. P. almost without realizing what it meant. He works for the city and the H. I. P. Plan provided that half the cost is paid for by the city. "Everybody else was joining," Mr. Healy says, "so I did too." It was a while before

the Healys got accustomed to the H. I. P. Plan and to the idea of being able to call for a doctor free of charge.

When they did turn to H. I. P., Mrs. Healy began to receive concentrated attention, free X-rays and treatments from "a big man uptown," as she puts it. "You got to make an appointment to see him." Mrs. Healy had gotten to the point of not being able to eat much, but her specialist put her on a diet and gave her pills to take—"some kind of a new drug it is." A bottle of these costs Mrs. Healy \$6.50 and they last her only a month. "It's the price of a pair of shoes, but if I bought the shoes instead, I wouldn't be able to wear them for I wouldn't be up."

The Healy's doctor, in the course of collecting Mrs. Healy's medical history, discovered the condition in her leg which had taken a back seat since her more pressing ulcer condition. He referred her to another "big man" and he treated the leg condition. "It's doing me a world of good," she says. "My leg's beginning to grow right again."

In May of last year Mrs. Healy's H. I. P.

specialist put her in a hospital for two weeks, at which time fluid was removed from her kneecap and a brace ordered. Although Mrs. Healy remembers that she had to sign a slip saying she would pay for anesthesia if it were necessary during her stay there, the only actual expense was \$46.50, the cost of the braces.

Aside from the pills for her ulcers, Mrs. Healy's only additional expense is \$5.50, for the possible replacement of a metal piece on her shoe, which is attached to the brace. But it will be a long time before she needs to buy a new one. Meanwhile she is improving so much that she is in hopes that perhaps one day the brace, shoe, metal piece and all will be unnecessary.

Mr. Healy and the children have had little occasion to use their medical plan except for colds during the past winter. But they all agree that the improvement in Mrs. Healy's health has been well worth the money. "Why they got her so she can eat now," Mr. Healy says, "and she's up and around. You should have seen her before," and he sighs.



# HEALTH NEEDS AND PROBLEMS IN INDUSTRY

**WALTER F. PERKINS**

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It might be well if I identify myself before giving you my thoughts regarding the needs and problems of health from the standpoint of industry.

I am an engineer by profession and have been identified with the metal working and construction industries for 40 years. I have seen and been a part of the great technical advances during that period. I have seen the development of the airplane, the automobile, the telephone, the radio, television, synthetic chemicals; just to mention a few of the things that we now take for granted but which have changed our entire pattern of life during the past half century.

I have seen the impact that these great technical developments have had upon our industrial system. I have seen the day when skilled artisans made bits and pieces by hand replaced by mass production and amazing automatic machinery. I have seen a steady but substantial improvement in the standard of living of the American workman.

I have always been interested in health measures and for the past decade have been a trustee of the Johns Hopkins Hospital. I know something of the progress that has been and is being made in the medical sciences. At the same time I am appalled at the steadily rising costs of medical and hospital care.

I have had some experience in fund raising for charity purposes, and one year served as General Chairman of the Community Chest of Baltimore. I have also had some experience with public budgets as an advisor to the Mayor of Baltimore in the preparation of that city's budget.

I cite this background, not with the idea of qualifying as an expert, which I most certainly am not, but rather to let you know that at least I have been exposed to the problem and to assure you of my sincere interest in it.

You have asked me to speak from the viewpoint of industry. Please understand that I have no

right to speak for industry. I am appearing solely as an individual—an industrial manager.

Modern industry needs workers who are mentally alert and physically fit. Many employers require physical examinations and certain medical standards are established as employment requisites. Obviously the rigidity of these standards varies with the type of employment. Some compromises can be made in some instances and places are found for some physically handicapped persons, but all in all industry wants and needs people who meet certain physical and mental standards. So that is industry's first need, but at the same time it poses the first problem—proper distribution from a physical fitness standpoint, of our working population to assure gainful employment and efficient production.

The second need of industry is that its employees stay well. Sick people are not efficient workers. Consequently, many organizations, including the one which I direct, give employees a physical examination once a year, and in our case our doctors counsel them about their health needs. We do not and cannot accept responsibility for treatment, but they are confidentially advised of their medical needs, if any, and suggestions are made regarding the best procedure for treatment. Once again this need of industry for well employees develops a problem. How will the employee get the proper medical, surgical or hospital care and who will pay for it? We make available and encourage all of our employees to take health insurance.

A third need of industry, as I see it, is that its employees' families stay well. A sick wife at home may prevent the husband from working, but even if he succeeds in making some arrangement for her care, he is worried and inefficient and may become careless, and an accident results. Many women are now working in industry. Imagine, if you will, her concern and effectiveness if she leaves a sick child at home.

Because of the increased manpower requirements of the Armed Services, together with the more rigid employment standards in some in-

dustries, there are not enough physically fit people now available to meet the increased needs of industry. So the fourth need of industry is the training or rehabilitation of handicapped persons to fill up the ranks. This poses another problem—how and by whom and to what extent should this be done? Some progress has been made but not nearly enough. Let me add that industry as a whole is making every effort to use handicapped persons.

So to repeat, industry needs:

1. Physically fit applicants for employment.
2. Healthy employees who stay healthy.
3. Happy and healthy families of employees.
4. More rehabilitated handicapped persons.

The problems created by these needs are:

1. Financing the medical, surgical and hospital needs of the workers and their families.
2. Rehabilitation and employment for handicapped persons.
3. Long range programs to raise the general level of health of all the people of this Nation.

As I said before, I am appalled at the cost of health and medical services. I am told that the total cost of such services during 1951 amounted to \$13,565,000,000, or 4.9 percent of our national income, as compared with \$3,944,000,000, or 4.5 percent of our national income in 1929. In 1929 10 percent of the total was spent by various governmental units, but in 1951 governmental expenditures had increased to 20 percent.

I am also told that the total expenditures for hospital care in 1951 amounted to \$3,910,000,000, which is just double the amount spent in 1946—five years before. After having struggled for some time with a hospital budget in excess of \$6,000,000 annually, I find it difficult to be too critical of this increase. I know from experience something about the cost of patient care—the rising cost of food, drugs, clinical tests and nursing care.

I think we owe it to ourselves, however, to scrutinize this mounting cost of health and medical services. Your own figures indicate that the increase from 1942 to 1950 was due to—

	<i>Percent</i>
1. Prices and wages.....	60
2. Population increase.....	11
3. Expansion of services.....	29

This, however, is no excuse for complacency. Hospitals must find ways to cut costs. We at Hopkins have had some success in this direction and are determined to do more.

And yet in spite of the expenditure of this vast sum of money in 1951, I am informed that only about one-fourth of our population have facilities available that meet recognized public health standards.

Undoubtedly these costs will continue to increase. Our population is expected to increase from its present level of 150 million to 177 million in the next decade. While this is not as great an increase as in the past decade, there will, however, be a greater percentage of children and older people. It is reasonable to expect that with this population increase and the discoveries being made in the medical sciences, our services will have to be expanded. Increased cost is inevitable.

I think we can all agree upon the obligation of the State to provide public assistance to the aged, dependent children, the blind and the indigent.

I think we can also agree that private funds are no longer able to meet the entire cost of research; medical, dental and nursing education; hospital construction and possibly acceptable standards of operation; and vocational rehabilitation.

There must be State support for these programs.

It seems to me, therefore, that the most important question before you is—how will the medical and hospital bill of the American family be financed? I have a strong conviction that most Americans want to pay for what they get. I believe that most Americans are thrifty and if given half a chance will provide for emergencies, either by savings or with insurance.

Health and hospital insurance programs now cover a phenomenally large number of Americans. Hospital insurance is currently held by 86 million persons. I think, therefore, that the sensible thing to do is to encourage the extension of hospital insurance so as to make it available at reasonable rates to all of our people. We must also develop reasonable and adequate medical, surgical and nursing care insurance plans. This will need the active leadership of the medical profession, which so far has been lacking. Failure on their part to furnish this leadership may lead to dire consequences for them.

I am not either advocating or opposing any of the numerous plans being suggested. I would not presume to do so, because I am not well enough informed.

It is apparent, however, that public funds in



large amounts will be needed for most phases of the program. I do not believe a rigid national formula can be developed which will suit all conditions or localities. I feel very strongly that local governmental bodies should provide as much of the needed public funds as possible, and where Federal funds are provided, they should be limited to matching those put up by local communities. I further think the distribution of such public funds should be made on the local level by local people.

This is a problem that cannot be solved overnight. England thought so, and you all know

what happened there. With patience, cooperative intelligent action and due regard for our ability to pay, progress being made in other areas of our national life can be duplicated here.

I am glad to have had this opportunity to express my views. Please don't think I am attempting to oversimplify this problem. I realize full well its complications and ramifications. The solution is not simple. I am confident your deliberations and your forthcoming report to the President will be a great contribution to the welfare of the American people. We are all indebted to you.

# AN EVALUATION OF BLUE CROSS PLANS

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It is my assignment to present "an evaluation of Blue Cross" in the light of the special question under consideration, which is, "How adequate and effective are present methods of financing health services for individuals and families?"

First, I want to assure the members of this Commission and the public at large that we in Blue Cross consider it a privilege, as well as a social obligation, to do everything within our power to help with this effort to establish the facts regarding the Nation's health needs.

We in Blue Cross have been pioneers in the business of financing the health needs of the American people. In this field we enjoy an unchallenged seniority. But while we are jealous of our seniority, we do not intend to yield our active leadership in this work to anyone; we sincerely welcome every effort to cast light on the problem and to advance its ultimate solution for all the people of the United States.

Second, I find it necessary to begin with the statement that we in Blue Cross have had too much experience with this business not to know that such terms as "adequate" and "effective" become dangerously misleading if and when they are considered outside the conditions of supply and demand.

A complex of causes, economic, social and cultural, have in recent years brought about a sharply increased demand for health services. We know that we have not been training physicians, surgeons, dentists, nurses, laboratory technicians, and many other categories of professional and technical personnel, at a rate comparable to the rate of increasing demand for their services. In some areas of this country, hospital facilities have been expanded at an adequate rate to meet the rising demand; in many other areas this has not been true. Even in the fortunate areas the shortage of

professional and technical medical personnel poses a serious problem.

This problem has been aggravated by the general inflationary tide of our times. It is the combination of all these factors that has made the financing of hospital services such a vital and difficult problem, and no one facet of this problem can be completely isolated.

We in Blue Cross would like nothing better than to nail down the terms "adequate" and "effective" with precise definitions. This would make our jobs a heaven on earth. For there are times when, were I suddenly asked about my idea of heaven, my impulsive answer could easily be a place where rate-raises never happen and where one need never face the possibility of betraying the principle of full service benefits. We in Blue Cross do not like half service or partial indemnity. We believe wholeheartedly in the need for a full service benefit plan.

Today, when rates for hospital and medical coverage, no matter how studiously constructed, are in almost constant flux and rising costs keep benefit patterns under perpetual siege, theories must be treated with caution. We are not dealing with a commodity that can be mass produced. Just putting money in the hands of the people will not solve the problem. For instance, if we in Blue Cross were to double our enrollment in the next 30 days, the result would probably be the nation-wide collapse of our hospital and medical services. As a Nation we are accustomed to advancing one step at a time; we learn to walk before we attempt to run. Here we face an evolutionary problem. We must solve it in an evolutionary way.

To handle my assignment, I propose to answer the following questions:

1. Does the Blue Cross rate of growth, compared with the annual increases in hospital admissions, indicate positive public acceptance of Blue Cross as an adequate and effective method of prepayment of hospital care?
2. Has Blue Cross become a significant factor



in encouraging the systematic expansion of hospital services?

3. Is Blue Cross exerting a definite influence in upping standards of hospital care, thus laying the foundation for universally higher standards of hospital service?

4. Does Blue Cross have the experience, the vision and the administrative flexibility to provide the Nation with a truly universal, non-profit system of financing hospital services?

Let us take up the first question: Does the Blue Cross rate of growth, compared with the annual increases in hospital admissions, indicate positive public acceptance of Blue Cross as adequate and effective hospital protection?

While prepayment plans of the Blue Cross type have been in existence since 1933, it was not until January 1, 1937, that enrollment passed the half-million mark. There were then an estimated 608,021 Blue Cross members. Blue Cross had become something to watch.

In the 15-year period between January 1, 1937 and January 1, 1952, the population of this country increased about 19 percent. General hospital admissions increased, however, no less than 104 percent. But Blue Cross membership during these 15 years increased 63 times, to hit the total of 38,515,000. On July 1 of this year, national Blue Cross enrollment stood at 39,462,000. That is an increase of more than 64 times over what it was on January 1, 1937.

Let us take a shorter perspective. Hospital admissions in the United States increased from 15,829,000 in 1947, to 18,237,000 in 1951, that is, a net increase of 2,408,000 annual admissions. During these same five years Blue Cross membership in the United States increased from 27,532,000 to 38,515,000, an increase of 10,983,000 members. For the whole span of the 15-year period we have considered, Blue Cross membership increased at the average rate of more than 2,500,000 new members per year.

Here is evidence based upon reality. Here is the judgment of the people. The Blue Cross rate of growth is a phenomenon in public acceptance that is without parallel in contemporary American life.

Fifteen years ago Blue Cross covered a fraction of one percent of the American people. Today it covers 25.7 percent of the people. If management in the steel industry, the automobile industry, and the many other industries covered by Blue

Cross did not think Blue Cross the most adequate and effective method of financing hospital services; if the Farm Bureau and the Grange, the many trade associations, and the millions of individuals covered by the Blue Cross did not think so; could Blue Cross have grown so consistently from year to year, could it have achieved the phenomenal manifestation of public acceptance that it has? You know and I know that it could not.

Let us now take up question two: has Blue Cross become a significant factor in encouraging the systematic expansion of hospital services? Has it proved that the hospitals themselves, through their own prepayment agency, can provide a sound and economical method of financing their services for the people who require them?

In 1951, Blue Cross payments to all hospitals in the United States amounted to \$454,786. That was 26.7 percent of income from patients received by all nongovernmental general and special short-term hospitals. Let us get this simple but all-important fact established first of all, that while Blue Cross covered 24.9 percent of the people, it paid 26.7 percent of the national hospital bill. It paid its full share.

Here are more cogent facts to cast light on the terms "adequate" and "effective," for obviously no method of financing is either "adequate" or "effective" if it falls short of providing the hospitals with adequate and effective income for the tremendous job they have ahead:

[Percentages indicate increases over previous year]

Year	Percent increase in hospital admissions	Percent increase in Blue Cross enrollment	Percent increase in Blue Cross payments to hospitals
1947-----	4. 46	13. 38	48. 79
1948-----	3. 75	11. 05	26. 56
1949-----	1. 44	9. 40	20. 72
1950-----	2. 18	12. 16	26. 27
1951-----	7. 13	2. 42	17. 11
Total 1947-51-----	15. 21	43. 5	135. 8

Yes, the people of the United States have not only been joining Blue Cross at the rate of more than 2,500,000 new members each year, but they have been doing that while paying the steadily increasing costs of the benefits they were receiving.

Substantial increases in benefits took place during this period. The people were paying more and they were getting more in spite of increased hos-

pital costs. A substantial percentage of the increased benefits and increased payments to hospitals came out of better management. Blue Cross overhead for all of the Plans averaged 13.1 percent of earned income in 1946. It dropped to 8.11 percent of earned income in 1951.

I mean to pinpoint these facts. Between 1947 and 1951, Blue Cross membership in the United States increased 43.5 percent. But Blue Cross payments to hospitals increased 135.8 percent, a rate of increase that is more than three times the rate of increase in membership.

The medical and hospital services a people enjoy at any time are fundamentally social products. We cannot separate high wages, generous philanthropies, large government expenditures, health programs sponsored by labor unions and communities, and community support of their hospitals, from the quality and quantity of the medical services we enjoy. In considering the financing of health service, we cannot consider the interests of the citizen as distinct from the interests of the hospitals. There is a mutuality here that is organic, not merely logical. The Blue Cross record gives this mutuality of interests a living and creative meaning in every American community.

Question three: Is Blue Cross exerting a definite influence in upping standards of hospital care, thus laying the foundation for universally higher standards of hospital service?

We have talked about enrollment and about payments to hospitals—two very important proofs of the adequacy and effectiveness of any financing method. Now we shall turn to something else, to the less obvious activities which so often are the better indicators of the social philosophy that is behind a program like Blue Cross.

What makes Blue Cross so important socially is the fact that each Blue Cross plan is a local and completely autonomous undertaking. In its effort to succeed, each Blue Cross Plan had had to win the active support of practically every segment of the local community. Management, organized labor, farm organizations, civic groups, local and State government officials, have all acquired through the Blue Cross effort a better working understanding of the whole problem. Blue Cross growth has been accompanied by a parallel growth of community understanding, in all matters involving the financing of health services. However, the grass roots source of Blue Cross strength has also been the cause of some of its basic problems particularly in relationship to problems of national

scope. Blue Cross Plans, proud of their own achievements, have had to overcome a tendency toward rigidity in regard to problems that involve the whole American community.

There has been a continuous record of achievement in surmounting these hurdles. This progress was climaxed in April 1950, when Health Service, Inc. opened its offices in Chicago and New York. Health Service, Inc. was organized by Blue Cross Plans to handle accounts that desire uniform benefits for all their employees on a national basis. Health Service does the job without in any way weakening the autonomous administration of each local Plan. It is owned and operated by the Plans.

Health Service is already serving as much more than a mechanism for handling national accounts. It is bringing into Blue Cross thought an increasing understanding of the importance of maintaining a balance between local or regional needs and the demands of the national economy. Where definite inadequacies exist, Health Service can step in and build up the benefits to the required uniform national levels. Thus, gradually but with perceptible effect, Blue Cross is raising national standards without imposing the hobbles of centralization. The money that each community pays to Blue Cross is spent for services in that community.

The Inter-Plan Service Benefit Bank is another Blue Cross agency that is set up to give the Blue Cross member national protection. The Inter-Plan Bank was established in 1949. It provides reciprocity of service benefits for subscribers of all member Plans. Today, 75 of the 83 Blue Cross Plans in the United States and Puerto Rico are members of the Inter-Plan Bank. This means that more than 90 percent of all Blue Cross members have hospital protection that is good from coast to coast. Designed essentially to give the Blue Cross member the full protection his contract calls for while traveling, while on vacation, or while moving, the Inter-Plan Bank is serving also the equally important purpose of putting the medical centers of the Nation as well as the local hospitals at the disposal of each Blue Cross member.

How important are the operations of the Inter-Plan Bank? In the period between May 1949, when it began to operate, up to July 1952, the Inter-Plan Bank handled 307,000 admissions involving 2,710,000 days of care at a cost of \$34,893,000. Current monthly volume averages about 17,000 admissions at the cost of \$1,750,000.



Subscribers who move permanently from one Plan area to another may transfer their memberships without lapse of time or loss of benefit. This is still another unique Blue Cross service.

Through the Blue Cross Commission, which is officially a part of the American Hospital Association, and through the various other bodies set up by the Blue Cross Plans, the work goes on constantly to raise standards and to improve benefits.

Question four: does Blue Cross have the experience, the vision and the administrative flexibility, to provide the Nation with a truly universal, non-profit system of financing hospital services?

The Blue Cross group program covers more people in the United States than are covered by the group programs of all the commercial insurance companies put together. Statistically this is very impressive, but the facts behind the statistics are far more impressive in the light of question four.

Blue Cross, and only Blue Cross, encourages the member of a group to maintain his membership when changing employment, moving or retiring. Whatever the reason, any member of a Blue Cross group, upon leaving the group, becomes automatically a direct pay subscriber, with benefits covering the subscriber and his or her dependents. This continuity of coverage, available to every Blue Cross subscriber, is one of the most important social contributions of the Blue Cross Plans. It assures each Blue Cross subscriber protection when he may need it most and when he may be in the least favorable position to cope with hospital bills. Blue Cross treats each subscriber as an individual—not just as an anonymous part of a group.

Blue Cross has worked hard and resourcefully to cover the farmer and his family. Blue Cross has given the farmer group benefits at group rates through the device of collection systems. Farm Bureaus, Granges and rural cooperatives are models of the type of groups through which Blue Cross provides its most comprehensive types of coverage for the rural population.

In industries involving small units, with considerable movement of employees from job to job, Blue Cross has developed a method of coverage through unions and through employers' associations. Each employer contributes to a central fund, out of which payment is made for all the employees employed by the members of the association.

Blue Cross regards itself as the social program

of the American community hospitals. It feels under a moral and a social obligation to develop every practical type of expedient for providing coverage whenever possible. That is why Blue Cross has always provided for continuity of coverage upon termination of employment or upon retirement. That is why we are now pioneering a program providing comprehensive group benefits at the low group rates for retired workers. Nobody knows better than we in Blue Cross how much it means to a retired person to have his hospital needs provided for to the end of his life. Nobody is more anxious to develop this coverage.

The objective of Blue Cross is a system of universal non-profit coverage. Because this is the fundamental Blue Cross objective, it undertook in certain areas, the Veterans Administration "Home Town Care Program", for a group that is non-insurable. Any group made up of people that may have the single characteristic in common, that of needing medical-hospital care, is not insurable. Blue Cross has handled the VA program on a cost plus basis. I cite the experience with the Veterans Administration program as evidence that Blue Cross can handle programs involving the indigent and the semi-indigent.

I have sketched the achievements of Blue Cross. I have touched upon the efforts in many directions the Blue Cross Plans are making to develop a universal system of financing hospital services. Here is an appropriate place, I feel, to raise a very important question.

The Federal Government appears very much interested in the problem of financing health services for the people. Your Commission has been created by the President, and meetings have been called on the initiative of the Executive Department of the Federal Government. Why is it that the Federal Government, the Nation's largest employer, and the one most vocal on this problem, has failed to make any provision for helping its own employees and their dependents get any kind of financing of their health needs? The Federal Government has failed so far to take so rudimentary a step as the allowing of payroll deductions in order to facilitate medical-hospital group coverage for its employees.

Increasing numbers of the Nation's large employers are recognizing the desirability of making a contribution to the financing of health services for their employees. Why is the Federal Government so far behind private industry? Is there a wish on the part of some not to be too successful

in solving, by voluntary means, an acute social problem that has often provided useful political ammunition?

In view of this attitude of the Federal Government, I wish to set down some fundamental facts. No matter what type of prepayment system we establish for financing the Nation's health needs, whether wholly tax-supported or voluntary in major part, the money for it has to come out of the pockets of the active labor force. Since these people are already paying many kinds of taxes to support local, State and Federal institutions that care for various categories of illnesses, and since these people already take care of the indigent and semi-indigent through taxes and through voluntary contributions, immediate coverage for the active labor force should be our basic objective.

Realism and common sense dictate this approach. In view of the shortages of every type of professional and technical medical personnel, and in view of the many years it will take to overcome these shortages, a revolutionary approach to the problem can result only in chaos. Once the active labor force and all dependents have been covered by an adequate and effective system that is responsive not only to their needs but also to the equally important needs of a progressive hospital system, then we will have achieved the foundation we need for the rapid extension of the

system of coverage to include all the categories of citizens that require special assistance.

It is this foundation that Blue Cross has been building; which it is determined to complete in the shortest possible time. Federal Government can play a very important part in helping with this job and in expediting its completion. It can do that if it will act within the honest confines of its large and important responsibility to its own employees, taking a page from the other employers of this country for its guidance.

To summarize: The phenomenal public acceptance Blue Cross has won in so short a time from every segment of the population shows that the people find Blue Cross the most adequate and most effective method of financing their hospital services. The record of Blue Cross payments to hospitals shows that the people have confidence in Blue Cross, want Blue Cross benefits and are willing to pay for them, and that Blue Cross has become an increasingly important force in expanding hospital service. Blue Cross has developed a national program which uses its local strengths to meet national needs. Through its many devices for enrolling every type of group, Blue Cross has revealed its intention and its ability to develop into a universal system of hospital service financing, serving the whole community.



# AN EVALUATION OF BLUE SHIELD PLANS

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Blue Shield plans can be and will be just as adequate and effective in financing physicians' services for individuals and families as the people of this country choose to make them. Like every other commodity in an open market, Blue Shield coverage must meet satisfactorily the reasonable expectations of those who buy it; otherwise, Blue Shield plans will be unable to achieve the objectives which inspired their creation.

Because the time allotted for this presentation is limited, I shall confine my remarks to a brief discussion of a few of the outstanding characteristics of Blue Shield plans which have an important bearing upon their adequacy and effectiveness.

## Professional Control

During the past several years Blue Shield plans have been subjected to criticism because they are directly or indirectly under the control of State or local medical societies. In my opinion, such criticism is unrealistic.

Practically without exception professional and trade organizations in this country have been formed for the purpose of advancing the public interest through development of what they consider to be the enlightened self-interest of their members. Labor unions are a good example of this type of organization and thousands of others could be cited, including those of the medical profession.

In the scientific field there exist measuring sticks and evaluators, the accuracy of which is not open to serious question. Anyone who would argue that there are thirteen inches in a foot or three quarts in a gallon would be branded immediately as a dolt. In the field of human relations, however, general agreement on measuring sticks and evaluators is not always easy to obtain. It is for this reason that the interests of labor unions

and the interests of the medical profession might be in conflict.

Labor unions are opposed to the Taft-Hartley Act. They call it a slave-labor law. At the same time they favor a Federal compulsory health insurance law, which in the eyes of the medical profession would be a slave-labor law for physicians. The American Legion is also opposed to Federal compulsory health insurance but it favors Federal aid for medical education which is opposed by the American Medical Association. Perhaps some day we shall have measuring sticks and evaluators in the field of human relations that will pass inexorably upon the validity of conflicting claims, but that day is not now. In the meantime, we should try to understand the other fellow's viewpoint and ascertain his motives, for only with complete understanding and honorable motives on the part of all groups concerned can we build the kind of structure that will adequately serve the health needs of all the people.

Most Blue Shield plans undertake to provide services of physicians instead of cash with which a patient may purchase such services. Now this is an exceedingly important distinction because any agency that makes services available must of necessity exercise some control over those who render the services. This is one of the reasons the medical profession is opposed to Federal compulsory health insurance.

Under the Old Age and Survivor's Insurance Program the federal government collects money from people and then, if certain conditions are met, it gives money back to them. Basically this is a simple cash transaction and the recipient can do what he pleases with the money. Under Federal compulsory health insurance, however, the Federal Government also proposes to collect the money but instead of returning money to patients requiring medical care, it would undertake to provide the personal services of physicians. How this could be done without imposing controls on the medical profession I, as the administrator of a medical care plan, cannot understand.

Because most Blue Shield plans make available the services of physicians, it is only natural that the medical profession should be greatly concerned with the question of where the ultimate control of such an undertaking should reside. Even during the early days of the Blue Shield movement there were physicians who, while grappling with organizational problems, sensed that they were dealing with forces capable of generating unprecedented momentum.

In October 1941, Dr. James C. McCann, then Chairman of the Committee on Prepaid Medical Costs Insurance of the Massachusetts Medical Society, stated in a report to the Council of the Society:

With reference to the establishment of a corporate structure, we must give serious attention to the constitution of corporate structure and to the medico-economic significance of practicing medicine under a contract with a legal entity known as a corporation.

The corporation that we envision may be potentially a most powerful organization. If it should bring in a large proportion of the seven thousand resident physicians of Massachusetts, if it should bring in somewhere around fifty percent of the four million residents of the state, and if it should bring in all the funds that are turned over at present in the distribution of medical services between these groups, it could be one of the most powerful corporate structures in Massachusetts.

Dr. McCann was prophetic. Blue Shield in Massachusetts now covers 1,400,000 persons and pays out \$1,267,512 per month (June 1952) for physicians' services. It is no wonder, therefore, that Dr. McCann was concerned over the impact that such an undertaking might make upon the practice of medicine in Massachusetts. He continues:

The one most important thing to keep in mind is the question wherein will control of the corporation reside? By what means will the physicians maintain their control of this corporate structure . . .

The physicians of the State, who are in complete control of the profession of medicine, are planning to place a large part of their practice under the control of a corporation by the medium of contract. There is no stock ownership so that we cannot control this corporation through the medium of stock ownership. We have to adopt other measures of control if we are to protect our inalienable interests . . .

The inalienable interests referred to above are described by Dr. McCann as follows:

I think we must insist that the contribution of the physician transcends the contribution represented by the

premiums of the subscribers, which are only a lien or claim for completion of the contract. The subscriber contribution is not so-called "risk capital," any more than your premiums to a stock life-insurance company represent risk capital or an ownership claim. We are contributing the body of knowledge possessed by the whole medical profession, and the acquisition and use of that knowledge and skill by the individual physician. This knowledge, skill and practice represent, we should insist, capital knowledge that is of major importance in the operation of any medical-service corporation. Certainly, our knowledge is patentable—consider insulin and viosterol; however, our ideals do not permit universal patenting, and our progress is a universal gift to mankind. . . . So that as your committee tried to perform the character of this corporation, it seemed equitable to us that, on the basis of business practices, the right of physicians to control judiciously the corporation should not be questioned.

I have cited the above quotations because they epitomize the hopes and fears of those pioneers whose idealistic efforts were largely responsible for launching what has turned out to be a most significant instrument in the field of medical care. These men were sailing on an uncharted sea; consequently, they did what they thought best to assure a successful voyage. Under similar circumstances it is hard for me to understand how any group would have acted otherwise in the establishment of a corporation or similar agency designed to make the services of its members available to a large segment of the population.

In Massachusetts the Board of Directors is composed of fifteen members who serve without financial compensation. Only five of the fifteen are physicians. All of the Directors are elected by the Executive Committee of the Council of the Massachusetts Medical Society which is composed of one member from each of the nineteen districts of the Society and the five officers of the State Society. It is required that the State Society nominate at least a majority of directors.

The five physicians on the Board plus one non-physician constitute a Central Professional Service Committee which has jurisdiction over matters vitally affecting the practice of medicine. Policy regarding such matters, when voted by the Board, must be submitted to the Executive Committee of the Council of the Massachusetts Medical Society thirty days prior to implementation, except that establishment of income limits is reserved to the Council itself.

Currently, the Board is composed of two former State officials, two personnel officers, two labor representatives, three industrialists, one banker, and five physicians.



Blue Cross and Blue Shield plans are a unique development in the field of medical care. Here, for the first time in history, the major sources of medical care—hospitals and physicians—have taken it upon themselves to make their services available to essentially the entire population without the interposition of a third party imbued with the interests and motives other than those which traditionally have characterized our hospital system and our medical profession. In my opinion, this unique development has derived much of its strength from the fact that from the first, hospitals and physicians have known that their interests were fully protected. Perhaps, in retrospect, the precautions taken were more elaborate than they needed to be, but the medical profession, just as any other group in the population, should not buy a pig in a poke if it can avoid doing so.

And now a prediction to end this portion of my presentation. As Blue Shield plans become more mature and as understanding between physicians and non-physicians becomes more pronounced, there will be greater and greater non-physician participation in Blue Shield plans at the policy-making level.

## Scope of Benefits

All Blue Shield plans operate in accordance with accepted insurance principles which may be summarized as follows:

1. There must exist laws of mathematical probability which are applicable so that the insurer may be able to determine in advance just how often the event insured against will occur.

2. A person must stand to lose financially by occurrence of the event against which he wishes to be insured.

3. There must be a large number of independent policy holders.

4. The risk must be important enough to justify paying premiums.

5. The event to be insured against must be uncertain of occurrence insofar as the policy holder is concerned.

6. The insurance itself must not immeasurably increase the risk.

Although I shall point out that unlimited access to certain services rendered by physicians is not

insurable, such services can be covered partially through coinsurance. Coinsurance, as you may know, commonly takes the form of partial payment by the insured at the time services are rendered or exclusion from coverage of a portion of the bill or a portion of a given benefit. Its purpose is to reduce or eliminate excessive or unwarranted utilization of benefits.

In February 1943, Blue Shield in Massachusetts began providing benefits for surgical and obstetrical services in the hospital and for related X-ray, anesthesia and endoscopy. On June 1, 1947, benefits for medical (non-surgical) services in the hospital and for surgical and obstetrical services outside of the hospital were added. The latest addition was benefits for dental surgery in the hospital on September 1, 1950.

Based on our experience in Massachusetts, I should say that we could cover completely the following services of physicians without utilizing coinsurance, despite the fact that some of the services listed are not insurable:

1. Surgical services
2. Obstetrical services
3. Medical (non-surgical) services in the hospital
4. Anesthesia
5. Endoscopic services
6. Deep X-ray therapy
7. Diagnostic X-ray related to medical, surgical or obstetrical services
8. Treatment of contagious diseases
9. Routine immunizations
10. Periodic health examinations.

Perusal of the foregoing list reveals immediately that two important services rendered by physicians are absent. These are ambulatory diagnostic services and most home and office medical (non-surgical) services. Both of these services are subject to serious abuse by patients, physicians, or both, and therefore in my opinion, should not be covered without the protection of coinsurance, preferably in the form of partial payment by the insured at the time services are rendered.

While I believe that a Blue Shield plan can cover virtually all of the services rendered by physicians, either completely or with the aid of coinsurance, I do not believe that it is feasible for a plan to do so. To be insurable an event must be of significant financial consequence. Most minor surgery is not of financial consequence

and the same is true of immunizations and home or office calls for acute, self-limited diseases. Protection against the cost of such contingencies should be budgeted by the individual or family if for no other reason than to save the administration fee charged by the insurance agency.

Much has been said recently about the importance of preventive medicine. In terms of physicians' services, this means periodic health examinations and prophylaxis. Neither of these services are insurable because they are certain or near-certain to occur. To cover them a plan would have to increase each premium by whatever amount it cost to pay for the examination or prophylaxis plus a charge for administration.

Although Blue Shield plans do not cover periodic health examinations, they make a significant contribution in the field of preventive services. In the first place, Blue Shield plans have removed the fear of costly treatment which, in the past, is said to have kept ailing patients from seeing their physicians at the first sign of trouble. The accuracy of this statement can be verified by talking with any busy practitioner who sees a significant number of insured persons. In the second place, a large proportion of the services that Blue Shield plans pay for are of a preventive nature. In Massachusetts the procedures most frequently encountered are endoscopies, biopsies, and the removal of benign, premalignant and malignant lesions.

Despite the claim that the expanding discovery and use of preventive measures—including prophylaxis and periodic health examinations—will reduce the incidence of illness, I believe the opposite to be true. Because preventive measures increase the average span of life, more and more persons are becoming subject to the degenerative processes of aging. These, in turn, will require an ever-increasing amount of medical attention, much of which will take the form of surgical intervention.

I am aware of the recent claim that older people do not use the benefits of medical care plans more frequently than younger people. This is contrary to our experience in Massachusetts; but, assuming it were so, it is not difficult to demonstrate that the relative cost of such services is substantially greater in the case of older people than in case of younger people.

Consequently, if my reasoning is valid, Blue Shield plans can expect a gradual increase in the utilization of benefits which, in my opinion at least, is a good argument for limiting benefits to those services that are of economic significance and, therefore, cannot be easily budgeted.

In concluding this portion of my presentation I regret that I cannot tell you what scope of Blue Shield benefits the people of this country will ultimately decide is adequate and effective. However, I can tell you that Blue Shield plans are in a position to offer satisfactory protection against the cost of physicians' services and that the extent to which they do so will depend entirely upon the willingness of the public to pay premiums. At some point it will be more judicious for thinking people to put the equivalent of premiums in the bank.

## Prolonged Illness

It is currently fashionable in some medical and insurance circles to talk about catastrophic coverage and a few commercial insurance companies as well as the California Blue Shield Plan are experimenting with this type of underwriting.

Under the commercial insurance policies, the member pays all of his medical bills until a specified limit is reached—usually \$300 or \$500. Thereafter the company pays two-thirds or three-fourths of the remainder up to a maximum of \$3,000 or \$5,000. Under the California Plan coverage is provided for specified conditions up to a maximum.

Although it is not possible at this time to evaluate the strengths and weaknesses of the plans designed to protect against the medical costs of prolonged illness, I give you my impressions for what they are worth:

1. The bulk of the cost of prolonged illness arises out of the unusual expenditures required to maintain the patient in a hospital, in a nursing home, or in the patient's own home. If the patient is the main source of family income, maintenance of the other members of the family is also involved.

2. Compared to the amount of money required for maintenance, the cost of physicians' services is relatively insignificant and can be covered completely or almost completely by Blue Shield plans through a simple extension of benefits.



3. The medical profession should assume direct responsibility for making the services of its members available as required. It should not assume direct responsibility for solving other economic problems arising out of illness but should, if possible, cooperate with those charged with such direct responsibility.

## Payment to Physicians

Two basic methods of paying physicians for their services are available to medical care plans. These are fee-for-service and salary or capitation. Both of these methods have advantages and limitations.

Under the fee-for-service method of payment the physician receives a predetermined fee for each service or closely related group of services rendered. Thus, he is compensated directly in proportion to the amount and type of service he renders. This method of payment is traditionally associated in this country with the prevailing pattern of medical practice, which is individual practice by both family physicians and specialists. It is therefore only natural that Blue Shield plans, which are grafted upon the prevailing pattern of practice in this country, should utilize this method of payment.

The chief limitation imposed by the fee-for-service method of payment is that those aspects of medical care which are subject to excessive utilization and, therefore, are not insurable (ambulatory diagnostic services and most non-surgical home and office services) cannot be covered by a medical care plan using this method unless certain protective devices in the form of coinsurance features are employed.

The salary method of payment is so familiar as to need no elucidation. The capitation method, which is employed in Great Britain for family physicians, is less well known in this country. Under this method, the physician receives an annual fee—about \$2.50 in Great Britain—for each person on his list or panel. In exchange for this annual fee the physician is expected to render, within the limits of his competence, all the services required by the persons on his panel. Although in Great Britain the capitation method of payment is used to pay individual family physicians and the salary method of payment is used to pay individual specialists, both of these methods are said to be best adapted to group practice with integration of the family physician and associated prepayment.

The chief defect of salary and capitation is that they subject physicians and allied specialists to unlimited services for limited, predetermined compensation.

While the salary method of payment, or a combination of salary and capitation, may provide acceptable remuneration under private auspices for the full-time services of physicians on a restricted scale or for the part-time services of physicians on a more extensive scale, it is doubtful whether either method will ever appeal to a significant number of practicing physicians.

As I have indicated, unlimited access to certain aspects of medical care is not insurable. For this reason, a Federal compulsory health insurance program cannot utilize the fee-for-service method of payment, unless, of course, the fees for abusable services are reduced to absurdity. Because it is not feasible politically for a Federal program in this field to restrict the scope of benefits to those services that are insurable or to impose coinsurance features, and because the fee-for-service method of payment is not adaptable, salary, capitation, or both must be employed. If, as is estimated, 85 percent of the population would be covered by the program, there would be virtually no private practice. Consequently, a physician would be forced to practice under the program if he wished to remain in the practice of medicine. But to practice under the program he would have to submit to unlimited services for limited, predetermined compensation which would be the subject of bargaining between the medical profession and the officials who operate the program. While certain groups within the population may be able to bargain successfully with the Federal Government, I do not conceive of the medical profession being in this category. Certainly the recent experience of general practitioners in Great Britain in their protracted negotiations with the government concerning remuneration has been anything but encouraging.

In order for a compulsory health insurance plan to obtain the kind of control that it needs over finances and personnel, two main ingredients are required. These are group practice with integration of the general practitioner and capitation, salary, or both. Perhaps it is not a coincidence that those who advocate compulsory health insurance are also those who condemn fee-for-service and what they disparagingly call the solo practice of medicine.

Complete medical care is composed of many elements including hospital services, drugs, dressings, appliances, and the services of physicians, dentists, nurses, technicians, and social workers. Of all these elements there are only two which do not readily lend themselves to the application of unit financial values. These are the services of physicians and dentists. While it is not difficult to compute the cost of a patient-day in a hospital, the value of an aspirin tablet, or the wages or salary to be paid a nurse or technician, it is virtually impossible to make a similar determination of the value of services rendered by a physician in the private practice of medicine. It is for this reason that Blue Shield plans derive great strength from the fact that, within the confines of a reasonable premium structure, participating physicians establish the level of their own remuneration.

In Massachusetts, Blue Shield fees are established by more than fifty physicians representing seventeen specialties. These physicians are designated by their own specialty groups and not by Blue Shield or the Massachusetts Medical Society.

It might be expected that physicians, in establishing fees, would be overly generous in their own behalf but such has not been the case in Massachusetts. As a matter of fact, just the opposite has been true. Under our low-income plan, an appendectomy commands \$75, a tonsillectomy \$25. Under our middle-income plan, the figures are \$125 and \$50, respectively.

## Service Benefits

The majority of Blue Shield plans provide service benefits. This means that participating physicians make no additional charge for covered services rendered to individuals or families with annual incomes less than pre-established amounts.

I am acquainted with the arguments for and against service benefits. I have also had considerable experience administering a service benefit plan. In my opinion, a medical care plan cannot be effective unless it provides service benefits for a significant proportion of its membership. I say this not because I believe that service benefits are necessary to protect plan members, but because I believe that service benefits help honest, conscientious physicians protect themselves from their less scrupulous colleagues.

It is my conviction, gained through experience,

that where finances are concerned, the vast majority of physicians are honest, fair, and reasonable, and that, except for the gouging of a few robber barons, almost every unpleasantness concerning fees is due to misunderstanding on the part of patient, physician, or both. If all physicians were as most physicians are, we could forget about service benefits.

In Massachusetts we have two plans—one with a family income limit of \$3,000 and another with a limit of \$5,000. The scope of benefits is the same under both plans but the level of fees and subscription charges is higher for the \$5,000 plan than for the \$3,000 plan.

According to wage records in Massachusetts our income limits provide service benefits for essentially 85 percent of the working population. Because we permit subscribers to choose the plan that best suits their individual needs, we have succeeded in gearing our subscription charges to ability to prepay.

Our \$5,000 plan, which became available generally on January 1, 1951, was our answer to inflation. In the present economy our \$3,000 plan is subsidized by the medical profession for individuals and families with low incomes.

## Enrollment Practices

The vast bulk of Blue Shield members join through group enrollment. Because it is neither practical nor socially desirable for Blue Shield plans to insist upon high enrollment percentages, they typically protect themselves from a preponderance of poor risks by imposing waiting periods on obstetrical services, tonsillectomies, and, in some instances, also on specific conditions likely to be of common occurrence, chronic duration, or both. Waiting periods vary among the plans, the common maximum being one year. Where satisfactory percentage requirements are achieved, waiting periods are usually waived.

Most Blue Shield plans arrange for non-group enrollment of individuals and families not associated with an eligible group. In Massachusetts non-group applicants complete a health statement on the basis of which the application is accepted, rejected, or accepted with a waiver of known conditions likely to require treatment. In addition, a one-year waiting period is imposed on specified conditions. Although applicants must be less than 65 years of age, our experience seems to



indicate that this limitation can be done away with.

It is not difficult to enroll people in Blue Shield plans. The problem is to keep them enrolled when they lose their income. Although members who leave their place of employment may retain their coverage, not all of them do so. In Massachusetts the annual ratio of cancellations to total membership is 1.23 percent. About one-half of those who relinquish their memberships do so for lack of funds; the remainder drop out for a variety of reasons such as death, removal to another State, transfer to other coverage, etc.

There have been instances in Massachusetts where the State or local welfare agency has continued to pay subscription charges for persons out of work, but this is the exception rather than the rule because hospital and medical care is available to such agencies at rates considerably lower than those paid by Blue Cross and Blue Shield. Under the law in Massachusetts welfare agencies are required to pay no more than \$12 per day for care rendered in a hospital. This amount does not today cover the cost of hospital care, let alone the additional cost of physicians' services.

In my opinion, it is not unlikely that as Blue Shield plans extend the scope of their benefits and as payments for medical care by governmental agencies at all levels more closely approximate the cost of such care, the incentive of such agencies to assume Blue Cross and Blue Shield subscription charges for their beneficiaries will be enhanced.

Today virtually every person in Massachusetts who has not already done so can enroll in Blue Cross-Blue Shield, or in a medical care plan underwritten by commercial insurance companies. If with the present rate of enrollment—which in Blue Cross-Blue Shield alone runs between 150,000 and 200,000 per year—some satisfactory mechanism could be found to salvage those members who drop their coverage for financial reasons, it would not be long until virtually every person in the Commonwealth could enjoy substantial protection against the costs of medical care.

## Quality of Services

The assertion that Blue Shield plans exert little or no control over the quality of services rendered by participating physicians is true. Blue Shield

plans pretend to neither omniscience nor omnipotence. They assume that medical schools do a creditable job and that State licensing boards take their responsibilities seriously. They also believe strongly that patients should be permitted to choose their own physicians. Because the vast majority of practicing physicians in this country are participating, the services covered by Blue Shield plans are qualitatively neither better nor worse than those available to non-members in the same community.

## Conclusions

Blue Shield plans have been devised by the medical profession to help individuals and families meet unexpected and financially significant bills for physicians' services. It is for this reason that they are grafted upon the prevailing mode of medical practice in this country which is individual practice by family physicians and specialists on a fee-for-service basis. Less than three percent of the physicians in this country are currently engaged in group practice and most of these are specialists associated with groups that use the fee-for-service method of billing patients.

Because they use the fee-for-service method of paying physicians, Blue Shield plans will probably rely on coinsurance devices in order to provide benefits for ambulatory diagnostic services and certain home and office medical (non-surgical) services—the two areas in which their coverage now may be said to be deficient. Uninhibited access to such services can lead to serious abuse on the part of a minority of patients, physicians, or both, thus imposing an unwarranted financial burden upon the rest of the plan's membership.

Whether or not Blue Shield plans include benefits for periodic health examinations and other certain or near-certain prophylactic measures will depend upon the willingness of the public to reimburse Blue Shield for the cost of such services plus an administrative charge. Similarly, whether or not minor surgery and other services of little financial consequence should be included also will be determined by the public.

One of the few problems of consequence with which Blue Shield plans are faced is that of retaining members who are temporarily unemployed. If and when welfare agencies come to pay hospitals and physicians the cost of their services, the in-

centive for them to assume payment of subscription charges for the needy unemployed should be enhanced.

As would be expected, there are very few non-physicians who possess an understanding of medical practice in its many and varied ramifications. Similarly, there are very few physicians who are familiar with corporate administration,

actuarial principles, underwriting requirements, public relations, or mass salesmanship. Consequently, it can be predicted that, while the medical profession should not and will not relinquish ultimate control over its destiny insofar as medical prepayment plans are concerned, more and more non-physicians will be brought into Blue Shield plans at the policy-making level.



# AN EVALUATION OF MEDICAL CARE PLANS UNDERWRITTEN BY INSURANCE COMPANIES

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## **Insurance Benefits Related to Health and Medical Care**

In its rate of growth and development of new benefits, health and accident insurance has in recent years outpaced other major lines of insurance. Competition among the carriers together with an awareness of the unfilled needs in the field of health insurance have led to the continual development of new benefits and to methods of extending the insurance to an ever-widening portion of the population. Under both group and individual policies, benefits are now available toward the cost of hospital room and board, miscellaneous hospital expenses, surgical expense in or out of the hospital, and the expense of doctor's calls at the hospital, home or doctor's office. In addition, group insurance companies offer laboratory and X-ray benefits for diagnostic work done outside the hospital, supplementing the miscellaneous hospital expense benefits which cover similar costs incurred during hospital confinement. Benefits toward the cost of special nursing service are provided in some individual health insurance contracts.

Policies providing these benefits ordinarily pay stated cash amounts or the actual expense of treatment up to a specific limit. A number of companies are now offering alternative or supplementary benefits providing for the payment of all medical expenses including hospital care and special nursing in excess of a so-called "deductible" amount and up to a substantial maximum such as \$5,000 subject, in most cases, to a "coinsurance" provision whereby the reimbursement is for 75 or 80 percent of the actual expenses

over and above the deductible amount. This offering of protection against the truly catastrophic medical expenses represents the most interesting and significant development of the past few years, since it is in the realm of the extremely serious illnesses that insurance is most needed.

These medical care benefits are, in most cases, payable for nonoccupational accidents and sickness. To complete the pattern of protection workmen's compensation insurance provides medical benefits covering hospital, surgical and medical expense, as well as death, disability and survivors' benefits. Employers generally are required to provide this occupational protection but in most States they may select their own insurance company or, under certain conditions, self-insure.

Health and accident insurance also provides, in addition to the medical care benefits, weekly or monthly income payments on account of disability and specific payments for death or loss of limb or sight by accident. Automobile bodily injury liability policies, as well as many other liability policies, provide payments arising out of the insured's liability for injuries to others, including consideration of the cost of medical care. Automobile liability policies may also include medical expense provisions which pay, without regard to liability, the medical expenses resulting from injuries suffered by the insured or a passenger while riding in the insured's car. Similar provisions are often included in other types of liability policies.

## **Benefits Paid by Insurance Companies**

Health and accident insurance benefits provided by the insurance companies and specifically payable for hospital, surgical and medical expense in 1951 amounted to an estimated \$580 million. In addition, approximately \$9 million were paid for medical care under personal accident policies

providing blanket expense payments and under polio policies. Payments in 1951 under the medical expense provisions of automobile liability policies are estimated at \$13 million. Payments incurred by insurance companies for medical expenses under workmen's compensation insurance came to \$166 million in 1951.

The amounts just stated, aggregating \$768 million, represent insurance payments *directly* related to medical care expenses and specifically paid for the purpose of defraying these expenses. This, however, is not the whole contribution made by the insurance companies in relieving the economic burden of sickness and accidents. As mentioned, there are other insurance benefits payable as a result of accidents or sickness. Payments for loss of income due to disability and for accidental death or loss of limbs or sight under health and accident, disability or workmen's compensation insurance amounted in 1951 to approximately \$850 million. Liability payments under automobile bodily injury policies aggregated approximately \$585 million in 1951, much of which was paid to cover medical expenses. A substantial but undetermined amount was also paid for bodily injuries under other types of liability policies.

Life insurance plays a part in meeting the cost of medical care since, in many cases, a portion of life insurance benefits is used to pay the expenses of final illness and other medical bills. In fact, in well-rounded insurance programs a certain amount of life insurance is often definitely earmarked for this purpose. Death benefits paid for all purposes, in 1951, under life insurance policies, totaled \$1,709 million.

These benefits not in the category of voluntary insurance against the cost of medical care have been enumerated to show how the various forms of insurance complement one another in creating a comprehensive program of protection against the many hazards to which human life and health are subject. The remarks which follow, however, will be confined to a discussion of health and accident insurance providing benefits specifically for hospital, surgical, and medical expenses.

## Evolution of the Current Health Insurance Policies

Insurance premium rates and underwriting practices are based, in general, on past insurance experience, but, in offering new benefits, no such

past experience is available. Sometimes recourse to statistics relating to the population is possible, or the results of special surveys undertaken by private or governmental agencies may afford some help. Otherwise, judgment estimates must be made and then tested by offering the insurance at rates so determined, and observing the results. Thus a full-blown insurance plan offering the ultimate in protection is necessarily the product of an evolutionary process. In the case of hospital expense insurance, this process began nearly 50 years ago with a provision whereby the weekly disability income was increased by 50 percent during hospital confinement up to a stated time limit. Reimbursement of certain surgical fees up to stated limits was also provided in some of the early policies. There was little change in these rudimentary benefits until the thirties. At that time hospital benefits toward room and board charges were increased, provision was made for limited reimbursement of other hospital charges, and benefits were added toward payment of doctors' bills for non-surgical treatment. These medical care benefits then became available independent of cash disability benefits, thus permitting the sale of hospital, surgical and medical insurance to persons not gainfully employed and to dependents of insured persons.

Along with the broadening of benefits, there have also been changes and innovations in methods of distribution. At first these benefits could be purchased only through individual policies. Some group insurance of this type was placed in 1928 with major activity on the group basis commencing several years later. Initially the group method was available only to establishments of 50 or more employees. This minimum group requirement was later reduced to 25 lives. Now, where permitted by State law, groups as small as 10 or even 5 are insured by some companies. This broadening and extending of the coverage has brought health insurance to more and more people, and at the same time has focused attention on the comparatively rare, but individually very serious, cases of long or complicated illnesses for which more comprehensive protection is needed. In seeking the solution of this problem, insurance companies have developed the catastrophic illness or major medical expense policy previously mentioned. As in the case of any new product or service, knowledge and appreciation of it by the public must precede its widespread distribution. Also, the premium rates and practices of the insurers must



be further tested by observation of the actual experience.

## Benefits of Competition in Health Insurance

Except for problems created by inflation, insurance companies have had a generally favorable climate in which to experiment in this field. Free competition, of course, is particularly favorable to the development of new ideas and services. Insurance companies are closely regulated to assure their solvency and their operation in the public interest, and they are required to meet certain minimum conditions in respect to the policy forms which they offer. Fortunately, this regulation has not, in general, inhibited the introduction of new benefits or the broadening or liberalization of existing ones. Furthermore, the insurance which the companies have offered does not involve any element of control over the insured as a patient, or over the doctor or the hospital. The relationships between the patient and the doctor or hospital are not disturbed by the insurance.

The belief is sometimes expressed that an insurance or prepayment plan should involve some supervision over the services purchased, but in the opinion of most insurance people, this is not a part of the function of insurance. However, in underwriting this type of insurance, the companies find it increasingly important that there be an understanding and appreciation by physicians and by their own personnel, of the interrelationships between medical economics and medical care insurance. While insurance companies have avoided any interference with the practice of medicine, they have encouraged medical research, through grants of money, and have promoted the dissemination of information on health, habits and accident prevention.

Under these conditions of free competition, voluntary insurance has been able to develop new benefits and to discover new methods of distribution and administration. This freedom to explore and develop has been a fortunate condition in the history of voluntary health insurance. It has occurred during a period of unprecedented change and advance in the practice of medicine. This is a period which has seen the increased use of hospitals with frequency of admissions on the rise, but with the average stay decreasing as a result of early ambulation following surgery, great advances

in diagnosis, spectacular results from the new antibiotics, increasing specialization in medical practice, and development of group practice in some areas.

A uniform plan of prepayment for medical care might easily have inhibited or impeded some of these changes and advances, but voluntary health insurance with its elasticity and its responsiveness to local needs and desires has not done so. To the contrary it has fostered advances by its contributions to the financing of medical care. It is desirable that the elasticity and independence of voluntary plans and the variety of benefits offered be preserved so that the public may continue to choose the type and scope of insurance it desires, and so that insurance may be adapted to future changes in medical practice. Also, experience may indicate the desirability of revising existing benefits. For example, the tendency to provide medical and X-ray benefits limited to in-hospital care may be unduly taxing the facilities of hospitals for services that could as well be performed elsewhere. In a competitive system, proper balance is maintained by the interplay of natural forces such as supply, demand and price. With a variety of plans and policies available at varied cost, and offered by numerous organizations actively competing with each other, people can express their individual desires in health protection by purchasing insurance covering those contingencies against which they wish to insure in the amount they choose.

## Health Insurance and the General Economy

The recent gains made in health insurance have been partially offset by the adverse influence of rising prices. With each step toward larger amounts of benefit, the goal of adequate coverage has receded as a result of increased cost of medical care, particularly hospital charges. While hospitals may be able to check this rising spiral of costs, and undoubtedly are striving to do so, the prices of the goods and services which they must buy are largely beyond their control. Rising personal taxes also impair the ability of the individual to pay the cost of medical care, whether on a prepayment basis or otherwise.

A sound economy contributes in many ways to good health since other requisites, such as proper nutrition, good housing, and adequate public

health service, all depend on the economic health of the Nation<sup>®</sup> and its individual citizens.

## **The Distribution of Health Insurance to the Public**

In its use of the group method as well as the individual method of sale or distribution, health insurance offers the economies of mass distribution to those whose employment makes this method applicable. At the same time individual policies are made available to those individuals who do not belong to insurable groups. The individual policies also offer those who are covered in groups the opportunity of purchasing additional insurance where there is a need and desire for it.

Obviously, voluntary insurance will never achieve 100 percent coverage of all those eligible for it. Because it is voluntary there will always be those individuals in our society who feel that they do not need it or who are unwilling to forego some other purchase or benefit in order to find a place in their budget for the cost of health insurance. However, the sales organizations of the companies, aided by advertising and other sales promotion activities, have distributed health insurance widely throughout the country and may be expected to continue doing so.

Among the companies and associations offering health insurance are some organized to serve special groups, such as teachers, clergymen, members of labor unions, farmers, and employees of a single employer. Health insurance is also sold by mail through "commercial travelers" and other organizations and is provided for the members of some fraternal societies.

## **The Problem of Individuals Who Cannot Obtain Insurance**

Those ineligible for insurance comprise, primarily, the indigent and people who do not meet the insurance companies' standards of acceptance. Obviously, a system of voluntary health insurance cannot take care of the indigent any more than the grocery stores can be expected to provide the indigent group with food. The needs of the indigent, whether for food, clothing, housing or medical care, must be met by private charity or by governmental assistance. The real challenge which the indigent offer, is to raise in them the

desire and to provide in our economy, the opportunity for their self-support to the greatest possible degree. Certainly in no other country of comparable size has so much been done to give everyone an opportunity to achieve a satisfactory scale of living by his own efforts. In our attempts to improve the condition of the indigent and near indigent, it is important that they not only have the opportunity for self-support, but the incentive as well.

The suggestion has been made that voluntary health insurance plans, meeting certain specifications, should extend coverage to indigent groups in return for a Government subsidy. Unless it can be shown that this approach offers important administrative advantages, there is little to commend it and there are many objectionable features. It has been urged that this would avoid the stigma of accepting public assistance at the time of sickness, but the means test would have to be applied to the entire class of the indigent to bring it under such a plan. The cost would still fall upon the taxpayers and the insurance mechanism would appear to serve no valuable purpose.

As to the uninsurable, this group is being progressively reduced. Group insurance customarily covers all active employees regardless of physical condition or age. The area of group insurance is being expanded as more companies are lowering their limits from 25 to 10 or even to 5 lives. In the field of individual policies, an increasing number of companies are offering insurance up to ages 70, 80, or even without age limit. Some progress is also being made in the underwriting of substandard risks on an individual basis. In providing insurance for the aged and for people who are not presently acceptable because of poor health, there is need of more statistical data on which to base the rates. This statistical basis is being developed gradually by extending the coverage step by step and observing the results.

## **Insurance for the Aged**

For the older person not covered by group insurance who continues to be employed and who maintains his earning power, the higher cost of individual insurance should not entail a serious burden as he is relieved of the expense of dependent children. The retired individual, however, presents another situation. In some cases, his former employer continues his coverage and that of his dependent wife under the employer-employee



group insurance plan. In other cases, the retirement income which he enjoys from various sources may be adequate to cover the cost of purchasing individual insurance against hospital, surgical and medical expense. For those whose incomes are sufficient to provide only the minimum requirements of food, clothing and shelter and who are so unfortunate as to incur substantial medical expenses, public assistance or private charity are widely available to assure them needed medical care. The recent amendment to our Federal income tax laws giving people over 65 the right to deduct from taxable income all their medical expense, including health insurance premiums, up to the maximum limit, offers some relief to those whose incomes are subject to tax.

Health insurance for the aged is becoming increasingly available. The ultimate problem is not its availability, but the adequacy of personal income at the older ages to meet the cost of this insurance as well as other essential requirements. Individuals, in planning their old-age retirement programs, and employers, in developing pension plans and in their pre-retirement counseling of employees approaching retirement age, should give due consideration to the increased costs of medical care at the older ages which are necessarily reflected in higher premiums for health insurance. Adequate retirement financing includes provision for this expense as well as for the other necessities of life.

## **The Place of Insurance in Health Maintenance**

Insurance, however, provided, must not be expected to solve all health problems. Good health, for the most part, is a result of good personal and family habits and intelligent use of personal income. The function of insurance is to spread the cost of illness and accidents. It does not lessen individual and family responsibility for the maintenance of good health. Voluntary insurance, in fact, is an evidence of the acceptance and assumption of personal and family responsibility in this area.

Medical care includes prevention, diagnosis and treatment. What portion of these services is insurable in practice? By its definition as "the act of insuring against loss or damage by a contingent event," insurance does not necessarily include prevention as an inherent function. In many

property and liability insurance lines, for example, elevator liability, the service sold by the insurer combines inspection for preventive purposes with insurance. In voluntary health insurance plans similar "inspection services" are, for obvious reasons, not so readily included. Prevention generally remains an individual responsibility. However, through their advertising, insurance companies encourage the practice of periodic medical examinations and other preventive measures. In diagnosis and treatment there are many expenses which may be insurable by theoretical criteria, but for which insurance does not meet the test of practical economics. One example is the treatment of a minor illness requiring not more than a few doctor's visits. Expenses of this type do not generally bear heavily on the individual and yet they amount, in the aggregate, to a substantial portion of the entire cost of medical care. Because the individual costs are small, it is more practical and economical to meet such expenses through budgeting of current income than through insurance, thus eliminating the administrative expenses involved in the payment of a large number of small claims. Since the small medical bills are frequent and numerous and the large ones relatively infrequent, a "deductible" amount in all medical care insurance would permit the payment of hundreds of dollars more on the long and serious illnesses, without any increase in premium payments.

Some attempts have been made to appraise voluntary health insurance by comparing the amount of benefits paid with the aggregate national expenditures for personal medical care. While this may be a reasonable way to gauge the growing value of health insurance in relation to an index which reflects population trends, utilization and cost of medical care, any implication that health insurance should meet the entire national expenditure or the major portion of it, and has failed to the extent that it does not do so, is unfortunate. As has been mentioned, the medical care bill includes many items which either are not insurable or are better handled by personal budgeting. Also there are the indigent, who cannot buy the insurance, and other groups who have adequate resources with which to meet these expenses.

Voluntary health insurance should not seek to cover all medical care costs from the trivial expenditures to luxury services. Its goal should be to supply such benefits as may be required in the

individual case to prevent necessary medical expenses from becoming a financial hardship. It should also be evaluated in its proper setting as one of several important methods of meeting the cost of medical care, the others being direct payment from personal income or by employers; for the indigent, private charity and public assistance.

## **The Prospects for Future Development**

In appraising voluntary health insurance and its future prospects, the record of its growth and development is significant. The entire history of the business covers a fairly short period and the major development of the medical care benefits has occurred within the past 15 years. The progress made by all types of insurers, Blue Cross, Blue Shield, independent plans, and about 500

insurance companies, is a story too well known to need to be detailed here. One indication of this growth is that the total number of people with some hospital expense protection afforded through all types of programs has increased in this 15-year period from a few million to more than 85 million. Insurance companies account for about half of this increase in coverage. In the same 15-year period all health and accident insurance issued by these companies has increased by more than 700 percent in terms of premium volume. Paralleling this numerical expansion we have seen many improvements in scope and quality of coverage. This record is evidence that voluntary health insurance, as provided by the various types of organizations offering it, is performing a valuable and effective service which is giving satisfaction to its users. With this demonstration of popular acceptance, there is ample reason to believe that the business will continue to grow and to serve an increasing portion of our population.



# AN EVALUATION OF INDEPENDENT PREPAYMENT PLANS FOR MEDICAL CARE

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The independent medical insurance plans differ from the commercial and Blue Shield plans in that most of them endeavor to provide comprehensive coverage and for this purpose find it necessary to operate through prepaid group practice.

The rising cost of living has accelerated a growing appreciation among people of low and moderate income of the need for insurance protection which will permit families to budget all the costs of their medical care throughout the year. At the same time, continuous health education by the press and radio and by the medical profession itself, is creating a growing public understanding of the need for disease prevention and early disease detection. These objectives can be attained through a voluntary prepayment plan only if it provides comprehensive medical care, which includes all required professional, laboratory, and X-ray services without financial barriers to prevent their prompt utilization.

Experience in this country has demonstrated that medical expense indemnity insurance which remunerates individual physicians on a fee-for-service basis cannot provide medical care of such comprehensive scope to insured families. Coverage is necessarily limited by these plans because of the unpredictable number of professional and laboratory services that physicians may choose to render under this method of remuneration, which results in unpredictable costs to the insurance company and, ultimately, to the consumers. In order to maintain some measure of control, the coverage provided by the medical expense indemnity method is therefore restricted very largely to in-hospital services. Even if there are some other benefits, the partial insurance coverage

which most of these companies provide still leaves insured families widely exposed to extra medical bills.

More important from a public health standpoint, the many extra charges that doctors are permitted to make under the limited plans deter families from availing themselves of the benefits of preventive medical services and from prompt use of existing facilities for early disease detection. In our aging population, disease prevention and early disease detection are becoming increasingly important aspects of medical care and they must be included in a medical insurance program if it is to meet the full needs of the public.

This is perhaps not the appropriate time to reiterate the arguments for and against national compulsory medical insurance. The objectionable features, as I see them, were outlined in my testimony at Congressional hearings before the Senate Committee on Education and Labor in 1946 (pp. 2060 to 2079), 1947 (pp. 121 to p. 164), and 1949 (June 20). But there is one outstanding challenge made by the proponents of a national compulsory system, namely, the comprehensive scope of its benefits, which most of the voluntary medical insurance plans in this country have thus far failed to meet. Voluntary insurance will not be accepted as the final answer to the problems of medical care until it can provide comprehensive coverage to those who want it and should have it.

In recognition of the public need for comprehensive medical care, attempts have been made by State medical societies in California and Michigan to provide comprehensive coverage on a fee-for-service basis. They failed for actuarial and other reasons. The benefits had to be limited thereafter chiefly to in-hospital services, because of the abuses to which the fee-for-service method of remunerating physicians inherently gives rise, especially under a medical insurance plan of com-

prehensive scope. The Oregon Physicians' Plan provides comprehensive coverage but only for wage earners, the preferred risks, and not for the dependent spouse and children who are the chief users of medical care.

As has now been demonstrated in many localities, comprehensive coverage can be provided for insured families by prepaid medical groups which are remunerated on an annual per capita basis. The required change to this form of medical practice cannot be attempted by commercial companies which merely pay medical bills and are not concerned with the quality or adequacy of medical care. Also, the local medical societies which sponsor the Blue Shield plans cannot set up or encourage such prepaid medical groups because they compete with solo practitioners and specialists who still comprise the bulk of the societies' membership. The medical societies will therefore take no part in modernizing the organization of medical care until a much larger part of the medical profession is engaged in group practice.

At the national level, the American Medical Association has accepted the principle that independent groups of physicians and community leaders should be permitted to experiment with newer patterns of prepaid medical care. But State and county medical societies cannot, or will not, initiate or operate such experiments because of their political structure. In 1949, the House of Delegates of the AMA adopted a set of 20 principles to guide State and county medical societies in approving such medical care plans. Since that time, only one of the hundred or more consumer or community-sponsored plans now in operation in various parts of the country has been approved by a State medical society because of the opposition of local physicians to any change in the status quo. The conspicuous solitary exception is Group Health, Inc., of Washington, D. C., which had been opposed for so many years by the Medical Society of the District of Columbia.

Prepaid group practice is to be found today in more than 100 communities in the United States and is providing comprehensive medical care to about 3 million people. The growth of this valuable method of medical practice continues to be retarded in almost every locality in which it exists by organized resistance from local physicians. In some States, local physicians try to prevent any members of the profession from practicing as a prepaid group in a thoroughly legal manner under auspices which they prefer. In

other States, laws have been enacted at the request of medical societies which actually prohibit prepaid group practice.

The medical profession now advocates voluntary insurance as the ultimate answer to all the medical needs of our people, especially those with low or moderate incomes and tight budgets. At the same time, it permits local medical societies or combinations of local physicians to obstruct the development of the only form which has thus far been able to provide comprehensive medical care at a cost that people of low and moderate incomes can afford on a prepaid basis. On July 16, 1949, an editorial in the *Journal of the American Medical Association* warned that such obstructive behavior by physicians may be unethical.<sup>1</sup> In spite of these pronouncements, the conflict at the local level remains unchanged and now calls for more positive action by national authorities within the profession itself if intervention by government is to be avoided. It is our hope that the Commission will find that this problem is of sufficient importance in the public interest to warrant its own tactful intervention.

The independent medical insurance plans, many of which are associated in the Cooperative Health Federation of America, were founded on three basic concepts: (1) that the public requires comprehensive medical care at a total annual cost which people of low and moderate income can afford to pay; (2) that the ready availability of comprehensive medical services to ambulatory persons is vitally important as a public health measure for disease prevention and for early disease detection; and (3) that organized medicine is handicapped by its political structure and is therefore unable to establish the necessary pattern of medical practice which will provide comprehensive medical care under voluntary insurance.

For this reason, most of the independent medical insurance plans were organized under consumer or community sponsorship with the aid of groups of physicians. It was appreciated that in this age of highly specialized professional skills and medical technology, the total medical needs of an insured population can best be met by a balanced team of physicians, specialists, and technicians trained in

<sup>1</sup> "Instances have occurred in which physicians, for political, commercial or emotional reasons, have endeavored to utilize the Principles of Medical Ethics as a means of producing embarrassment, distress or loss of reputation of other physicians whom they envy or whose open competition they fear. The Principles of Medical Ethics were not designed for any such purpose, and the attempt to utilize the principles of ethics for such purposes may well be in itself unethical." Editorial, *J. A. M. A.*, July 16, 1949 (Vol. 140. No. 11), p. 960.



the great variety of skills and technics which today constitute modern medicine. The purpose of the independent plans is to do something organized medicine is as yet unable to do—combine these medical skills and technics in the form of group practice and place them freely at the disposal of people of moderate means in return for the per capita income derived from insurance premiums. The independent plans can give the insured families the services of a family doctor and give him and his patients the benefit of the group's clinical laboratory, X-ray diagnosis and therapy, pathology, physical therapy, and other services and of the various specialties of medicine and surgery. Families which receive all their medical services from a prepaid medical group can completely budget the costs of their total medical care throughout the year. If satisfied with the full scope and quality of the care provided for them by the prepaid medical group, the insured population has no need to purchase medical care from any other physicians.

Therein lies the cause of complaint and resistance by the opponents of prepaid group practice. Their criticism that the subscribers to prepaid group practice do not have "free choice" of any physician in the community is not valid, for under voluntary insurance the subscribers have exercised choice when they elected to obtain their medical care from a prepaid medical group. If they change their minds after they have joined, they are at liberty at any time to discontinue their subscription and choose any doctor outside the plan whom they prefer and can afford to pay. In actuality, the members of my profession who endeavor to eliminate prepaid group practice by their harassments and make it unavailable to the public, are themselves the real opponents of "free choice."

In 1947, after a four-year study of the problems of medical care, the New York Academy of Medicine concluded that prepaid group practice is the logical and evolutionary development of "Medicine in the Changing Order." During the years preceding 1947, some of the founders of the Health Insurance Plan of Greater New York studied nonprofit medical insurance plans in various parts of the country and were convinced that medical society sponsored plans, because of their political structure, could not change the pattern of medical practice so as to provide the public with an opportunity to purchase comprehensive medical care. HIP was therefore organ-

ized as an independent nonprofit medical insurance plan under a Board of Directors composed of representative community leaders from labor, business and industry, Government, and the medical profession, who operate the Plan as a community trusteeship.

It is important to point out to this Commission that the Plan could not have been established without the aid of generous loans from several philanthropic foundations. These loans are already being repaid out of premium income. But the experience has demonstrated that similar projects cannot be established without financial aid in the form of grants or loans either from industry, labor groups, consumer or farm cooperatives, or, if it is to be under community sponsorship, from Government. The proper role of Government in the promotion of plans for comprehensive medical care through prepaid group practice was suggested in the 1947 Report on Medicine in the Changing Order of the New York Academy of Medicine.<sup>2</sup>

The effective use to which such loans or grants can be put is revealed by the brief record of the Health Insurance Plan of Greater New York. After five and a half years of operation, the Plan is providing comprehensive medical care to more than 360,000 insured persons and within a few months its enrollment will exceed 400,000. The services are provided by 30 medical groups which are located in various sections of the city. They comprise altogether about 950 physicians and specialists. Each medical group is autonomous and includes an adequate number of family physicians proportionate to its enrollment size and a complete roster of qualified specialists. The required professional qualifications for membership in a group are determined by an impartial Medical Control Board of representative physicians. The quality of medical care which they render is checked by the Medical Department of HIP.

It is important to point out that for public health reasons there are no deterring extra charges for any medical services which the insured may require in their homes,<sup>3</sup> in physicians' offices, medical group centers, or in hospitals. Every kind of medical and surgical service is available to

<sup>2</sup> "The Committee recommends that comprehensive medical services be extended by the use of voluntary, non-profit insurance, using group practice units wherever feasible, and government subsidy wherever necessary." Medicine in the Changing Order, Commonwealth Fund, 1947, p. 56.

<sup>3</sup> Except a permissible \$2 charge for night calls requested and made between 10 p. m. and 7 a. m.

them, including X-ray diagnosis and therapy, radium and radio-isotope therapy, diagnostic laboratory services, physical therapy, visiting nurse services, and even ambulance transportation without extra charge.

The Plan erects no barriers by reason of age, sex, or pre-existing illness, injury, physical defect, or pregnancy, either to admission to its rolls or to utilization of services thereafter. There are no waiting periods for medical care for pre-existing illness or pregnancy. Reliance is placed solely upon group enrollment to protect the Plan against the adverse selection to which unguarded individual enrollment would expose it.

The enrollment in the Plan consists of a representative cross section of a typical urban population, but it is as yet somewhat deficient proportionately in the adolescent age group and in females over 60 years of age. Even for these groups it is building up a substantial body of experience. Since the first day of operation of the Plan, a Division of Research and Statistics in HIP has recorded every medical service to every enrollee by means of an IBM coding system. In view of the absence of any age limits to enrollment, the Plan's experience with old people and with maternal and infant care is especially illuminating. The utilization rates of medical, surgical, and laboratory services available to all age groups also provide valuable data for future programs of medical care. The publications emanating from the Research Division are available to the President's Commission, as well as all of the Plan's recorded experience. A more detailed study of the experience of the Plan during its first five years is now being made by a special committee of impartial experts under the chairmanship of Dr. Lowell Reed of Johns Hopkins University, which is being financed jointly by the Commonwealth Fund and the Rockefeller Foundation. It will include also an investigation of the sickness experience of 10,000 households, of which 5,000 have HIP coverage.

Although HIP is now one of the largest independent plans, its enrollment constitutes only 13 percent of the total enrollment of the independent plans in this country. The experience of these plans throughout the Nation is now sufficiently voluminous to serve as an adequate demonstration that comprehensive medical care through prepaid group practice is professionally feasible and, from the standpoint of doctors and patients,

financially practical. There can also be no question of its importance to public health.

For these reasons, I believe it to be the function of this Commission (1) to find ways to overcome local professional resistance to its development, and (2) to recommend that financial assistance be provided by Government as a public health measure to encourage the wider extension of prepaid comprehensive medical care throughout the country by qualified medical groups under appropriate local community sponsorship.

In order to avoid being misunderstood, permit me to state that I favor also the extension of medical expense indemnity plans to as large a part of the population as possible despite their limited coverage. We must recognize realistically that solo medical practice on a fee-for-service basis will probably endure as the predominant pattern of medical care for a very long time. The transformation of medical practice to a more modern pattern will evolve slowly. The findings and recommendations of this Commission can, by influencing the rate of this evolutionary development, promote the extension of comprehensive medical care through this means to more of our people.

About eight weeks ago (August 13), the distinguished President of the American Hospital Association, Dr. Anthony J. J. Rourke, warned this Commission that the prepayment movement is markedly decreasing the clinical material on the teaching services of hospitals throughout the country and that this is having a very adverse effect upon the training, not only of medical students but of interns and residents. He stated to the Commission: "If this trend continues, our traditional teaching service will disappear and some other way will have to be found for training the doctors of tomorrow."

I submit that the way has been found, if voluntary hospitals will take advantage of it. Clinical teaching and research depend chiefly upon service beds, in which the care of the sick is the joint staff responsibility of the clinical service and not of a single doctor. As long as patients pay nothing for their medical care, they are always the combined responsibility of the medical staff who practice in the hospital as a group under the direction of the chief of the service. Why change this traditional form of group practice merely because some of the former ward patients now prepay their medical care? All that is



necessary to retain the clinical service of a hospital under the changing order of medical economies is for the staff of the hospital to accept the responsibility for a number of insured persons and to care for them as a joint responsibility. Many well-known group practice clinics throughout the country have demonstrated that this system of practice can promote high quality of medical care and maintain high educational standards.

The income received for the medical care of these insured people accrues to the benefit of the staff of the service and is distributed to them equitably in proportion to the time which each member devotes to his duties in the service and his relative skills and experience. By continuing group practice as heretofore on patients who are a

joint responsibility of the clinical staff, the educational and scientific functions of a hospital, upon which the quality of its medical care depends, may be retained intact.

This is one more cogent reason for this Commission to consider the two recommendations which I made during my previous testimony: (1) that the Commission find ways to overcome local professional resistance to the development of prepaid group practice; and (2) that, as a public health measure, it recommend financial assistance by Government to encourage the wider extension of prepaid comprehensive medical care throughout the country by qualified medical groups under appropriate local sponsorship.

# THE NEED, POTENTIAL AND IMPLICATIONS OF COMPULSORY HEALTH INSURANCE

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## 1. *The Accepted Need for Insurance Against Medical Costs*

There is now widespread agreement that sickness costs cannot be budgeted by most families individually and must be distributed among groups of people and over periods of time—through insurance, taxation, or both.

The assigned question concerns the need, the potential, and the implications of wider financing of health services through insurance than we have already achieved. To answer this question I must start by posing two others: How much insurance do we need? How much do we have?

## 2. *How Much Insurance Do We Need?*

If the burdens of medical costs are to be prevented, insurance has to extend to six kinds of costs—those for physician, hospital, dentist, nurse, laboratory, and probably about one-third of the expenditures for drugs and appliances. (See Appendix Note A.) Taken together, these six now account for nearly 80 percent of all private expenditures for medical services and commodities.<sup>1</sup>

If the families of the Nation have substantially less than such comprehensive insurance, they have no sure protection because no family can reliably anticipate what kinds of illness it may have, or what kinds of services or costs, or in what amounts, an illness may bring. Less than comprehensive insurance leaves gaps in insurance protection, invites partial care and excessive costs for insured

services, and retains the financial barriers against preventive and early care.

Private expenditures for medical care in 1951, exclusive of the net cost of insurance, were about \$8.5 billion. Protection against 80 percent means insurance that covers, at the minimum, \$6.8 billion of private costs.<sup>2</sup>

## 3. *How Much Insurance Do We Have?*

It is reported that about 86 million different people—about 56 percent of the population—had some insurance against medical costs at the end of 1951.<sup>3</sup> The aggregate benefit payments under all of this insurance amounted to \$1.35 billion, or 16 percent of total private expenditures.<sup>4</sup> This is 20 percent of the minimal amount of insurance protection we needed in 1951.<sup>5</sup>

If 86 million people had some insurance at the end of 1951, why did all insurance meet less than 20 percent of minimum insurance need? The answer lies in the fact that only about 3 million of the 86 million had more or less comprehensive insurance protection. The other 83 million had various degrees of limited insurance protection.

## 4. *Can We Expect Voluntary Insurance to Meet the National Need?*

The need for wider insurance thus refers to the gap between the 16 percent of insurance protection we had in 1951 and the 80 percent we needed.

<sup>2</sup> This estimate of how much insurance we need, at 1951 levels, is minimal because (a) it does not include the net cost of insurance and, (b) derived from actual expenditures, it takes no account of present underutilization or of expected increase in expenditures if insurance becomes comprehensive. An expansion of 25 percent in these costs as a result of comprehensive insurance coverage for (say) 85 percent of the population would increase the figure from \$6.8 billion to \$8.0 billion—still exclusive of the net cost of the insurance itself.

<sup>3</sup> *Accident and Health Coverage in the United States: Annual Survey as of December 31, 1951*, Health Insurance Council, June 1952, 31 pp.

<sup>4</sup> Based on estimates for 1951 of total private expenditures (exclusive of the net cost of insurance) and of benefit expenditures and payments made by all private health insurance plans and companies. See *Social Security Bulletin*, December 1952.

<sup>5</sup> It is only 17 percent of the expanded expenditures that might be expected under widespread insurance (see footnote 1 Page 2).

<sup>1</sup> This assumes that the net cost of insurance itself, not included in this figure, does not constitute a substantial additional cost.



The population coverage of private insurance has been increasing rapidly. As long as there is no set back in our economy, continued increase may be expected for some time to come. Will such further growth meet the need?

Assume that hospitalization insurance succeeds in covering 75 percent of the population within the next 5 or 10 years, and that other voluntary insurance grows correspondingly. All voluntary insurance would then insure against only about 21 percent of total private expenditures for medical care, or about 26 percent of the minimum insurance we need.<sup>6</sup>

To achieve more, private insurance would have to broaden its benefits greatly, while covering people who are increasingly difficult for it to reach and who would include a rising proportion of relatively "bad risks."<sup>7</sup> There is little ground for optimism here. Benefit expenditures per insured person, as well as premiums, have increased in recent years. But when adjusted for rising costs, there is no evidence of substantial or sustained increase in the scope of insurance protection. (See Appendix Note B.)

Perhaps it will be said that private insurance will be able to broaden protection after it has achieved larger population coverage. Against this stands the fundamental and stubborn difficulty that, without subsidies or compulsions, open or concealed, voluntary insurance has to be sold at a uniform premium. Each increase in premium to broaden the scope of protection carries the insurance beyond the means of some who should be insured.

Unless the middle and lower income groups are subsidized so that their premiums can be reduced, or the insurance carrier is subsidized so that it can charge a uniform premium at a reduced level, voluntary insurance will be unable to broaden both its population coverage and its scope of benefits. Solution by subsidy is not to be embraced lightly, since the needed subsidies would involve billions of dollars.

Voluntary insurance plans not only fail to provide adequate insurance protection but they do

not, and apparently cannot, provide needed additional financial support for personnel and facilities and for educational and related resources. They hinder at least as much as they help the development of group practice arrangements required for advancement of quality of care. They encourage segmented and categorical services, with excesses in various directions, rather than coordinated care. They impede as much as they support modern preventive medicine. They are inherently more expensive than comprehensive insurance can and should be. (See Appendix Note C.) And some of them encourage financial exploitation by practitioners and progressive commercialization of health services.

Voluntary insurance has brought valuable partial insurance to many people. But to meet the national need, it would have to make herculean efforts, undergo drastic changes (involving readiness to change and widespread support of the changes from professional groups, employers, the public, and their governments), obtain about \$7 billion of additional premiums, and reduce net insurance costs while at the same time undertaking increasingly difficult insurance functions. (See Appendix Note D.)

The proper test of voluntary insurance is not its good intentions, its high sponsorship, nor yet its enrollment. The proper test is its achievement in providing comprehensive insurance protection, supporting needed resources for health care, and assuring ready access to medical services for the people who need it. By this test it is inadequate.

## 5. *The Recommended Pattern for Compulsory Insurance*

Compulsory insurance has the potential for that wider financing of medical and related health services which the Nation needs.

Our recommendations for health insurance propose a national system with decentralized administration through the States.<sup>8</sup> We would build on the framework of our national system of old-age and survivors insurance which now covers about 45-50 million jobs or 75-80 percent of all in the civilian labor force. With the same cover-

<sup>6</sup> With 56 percent of the population covered, all private insurance benefits equal 16 percent of total private expenditures. With a proportionate increase of coverage to 75 percent of the population, insurance benefits would equal 21 percent. This would be 26 percent of 80 percent of actual total expenditures. All these figures exclude the net cost of the insurance itself and do not allow for such increases in expenditures as would result from extension of insurance.

<sup>7</sup> Those in small establishments or self-employed, in rural and semi-rural areas, those with low earnings (white and nonwhite, aged persons, widows and orphans, unemployed and partially employed persons), those already ill or afflicted with handicaps, etc.

<sup>8</sup> For a more comprehensive discussion, see: *Medical Care Insurance, A Social Insurance Program for Personal Health Services*, by I. S. Falk et al. Report from the Bureau of Research and Statistics, Social Security Board, to the Committee on Education and Labor, U. S. Senate, July 8, 1946. Senate Committee Print No. 5, 79th Congress, 2d Session, 185 pp. See also H. R. 54 (Mr. Dingell), 82d Congress, 1st Session.

age, plus dependents, and the readily added railroad and Federal employees and their dependents, the system would apply to about 85 percent of the population. The aged, the widowed and the orphaned receiving income benefits from the Federal insurance systems would have paid-up insurance for the medical benefits. The system could readily expand still further, and large non-covered groups could be made eligible for medical benefits through equitable payments on their behalf to the insurance fund.

Within a pattern for comprehensive insurance, the initial benefits could be limited to one, two or three kinds of service, with others to be added later in successive steps; or they could be as broad as resources permit and become more comprehensive as resources expand. We have thought the latter is the preferable choice. On this basis, the benefits would include the services of physicians and dentists—both general practitioners and specialists, general and special hospital care, the services of secondary practitioners, home nursing care, laboratory and related services, and prescribed appliances and medicines that are unusually expensive. Initial limitations on benefits, compelled by shortages of personnel or physical facilities, would be reduced or withdrawn as rapidly as practical.

All qualified practitioners and facilities would be eligible to participate, so that the benefits could be as comprehensive as the resources of the whole country permit. Assured payments for services would stimulate the expansion of needed resources.

There would be special provisions to deal with shortages of personnel and facilities in rural and other areas,<sup>9</sup> and such special measures would be available even before the program comes into operation. There would also be annual grants from the insurance fund to educational institutions and maintenance grants to students, and similar support for basic and applied research.<sup>10</sup> All of these would be financed by the insurance funds, not—as in some recent legislative proposals—by general tax revenues.

Our recommendations include many explicit guarantees and protections to insured persons,

<sup>9</sup> Through financial guarantees, grants, and loans to encourage location of practitioners in such areas, to develop and maintain needed facilities, to provide mobile clinics and ambulance service, to train and retrain persons who undertake to work in shortage areas, etc.

<sup>10</sup> Grants for the educational activities, fixed at 1 percent of insurance benefit expenditures after the first year or two, would amount to about \$50-60 million a year. We have recommended an approximately equal amount for research.

practitioners, hospitals, and other participants. These include, for example: the right of all qualified practitioners, hospitals and other facilities to participate and be paid for services to insured persons; the similar right of organized service groups and organizations that operate voluntary health service plans or health service insurance plans to participate; free choice of doctor, hospital, etc., by the insured persons; freedom of doctor, dentist or nurse to practice where he chooses; no intrusion into the management of hospitals; payment to practitioners by the methods of their choice, and at rates sufficient to yield adequate annual incomes; full-cost reimbursement to hospitals; and preservation of the confidentiality of personal records.

The national aspects of administration would be lodged in a national board and an Advisory Council located within the Federal Security Agency. These bodies would be concerned primarily with policy and allocation of funds to the States. Record-keeping, eligibility determination, and related operations would be performed by the Bureau of Old-Age and Survivors Insurance. Arrangements for benefits and their payment would be performed by State agencies (preferably the State health agencies); they would make the surveys of resources and needs, appoint staff, establish local health service areas, allocate funds to areas and services, make or approve contracts for services and payments, etc.

At the local levels, administration would be in the hands of local administrative committees or officers assisted by local advisory committees, and both would be assisted by local professional advisory committees.

The national board would administer benefits only when a State did not agree to undertake the responsibility or could not carry out its agreement. This would be a Federal guarantee to the insured persons that they would receive a return in benefits for contributions paid to a Federal insurance fund.

## 6. *The Cost and Financing of National Health Insurance*

How much would the recommended program cost and how would it be financed?

Starting from present expenditures for medical care, our cost estimates allow for two kinds of increases—(1) for more, better, and more comprehensive services immediately and in the early years of insurance, and (2) for more and better



services later, as resources are increased. As a result, the annual estimate for an initial year aggregates about 33 percent higher than current expenditures for the same kinds of services; a decade or so later, it is about 80 percent higher than those current expenditures. (See Appendix Note E.) These figures allow for continuation of recent trends with and without insurance. They could prove to be excessive, especially if the more effective development of preventive, diagnostic and therapeutic services reduced reliance on expensive hospitalization.

We have estimated that, in each of the first years, the recommended program would require about 2 percent of national income; 10 or 15 years later, when the supply of practitioners, hospitals, and other resources and the effective demand for services have increased, it would take nearly 3 percent. We have proposed that it be financed mainly by social insurance contributions. With the present old-age and survivors insurance "ceiling" of \$3,600, the estimates are equivalent to about 3.5 percent of covered earnings for the early years and to about 4.7 percent later. With a "ceiling" of \$6,000—more appropriate to present-day earnings levels—the costs are equivalent to about 3.1 percent at first and about 4.4 percent later. Dollar figures would vary with changes in coverage, prices, and earnings levels.<sup>11</sup> Barring large or catastrophic changes in the economy, the percentage figures related to national income or to current earnings would be relatively stable.

The insurance expenditures would in the main be substitutes for private expenditures. They would also relieve Government (at all levels) of many present tax outlays supported from general revenues. We have therefore proposed that the program be financed primarily from insurance contributions of 3 percent of covered earnings, supplemented by flexible but limited grants from general revenues—limited to amounts equal to 0.5 percent of covered earnings at first, to 1.0 percent a few years later, and—if necessary—to 1.5 percent when the program approaches as full maturity as can be foreseen.<sup>12</sup> The division of contributions between employers and employees could be in one proportion or another.

With insurance premiums fixed as a percentage

of earnings (up to a "ceiling"), contributions would be reasonably related to ability to pay; and the resources of the insurance system would automatically adjust to income and price levels. Thus, with the help of a contingent reserve, the insurance system would be able to preserve financial balance.

This insurance program would require increases in national expenditures for the kinds of services provided as insurance benefits, amounting at first to about 0.5 percent more of national income than in 1951 and later about 1.2 percent more. The insurance expenditures would still have to be supplemented by noninsurance personal expenditures—more at first when the insurance benefits are more limited, and less later on. Total expenditures for medical care and related health services would therefore probably be relatively larger than they are today.

## 7. *The Potentials of National Health Insurance*

From its very beginning, national health insurance could provide insurance protection against a large part of all the costs that are burdensome to the individual family. As personnel and facilities become more adequate, the system could provide something approaching 100 percent of the needed protection. It could do this for at least 85 percent of the population at the outset and closer to 100 percent later on.

At the same time, the insurance system could assure financial support for at least a minimum of essential personnel and facilities even in shortage areas, while supporting something approaching an adequacy level elsewhere.

The insurance system could relieve Federal, State, and local governments of substantial tax loads for personal health services. It could thus augment the capacity of general tax funds to support public health services, even while increasing the possibilities for lower tax levels.

In addition, the insurance system offers a large new opportunity to improve the quality and effectiveness of medical care through at least four developments or extensions:

(a) financial support of professional education and training, research, facilities and personnel, and group practice for diagnosis, treatment, and rehabilitation;

(b) new standards for facilities and specialists;

(c) experimentation with methods of payment that encourage adequacy of care; and

<sup>11</sup> At 1951 price and income levels, these annual costs would be about \$5.3 billion at first and about \$7.2 billion later on.

<sup>12</sup> There are also various technical reasons for these allocations, concerned with administrative effects of periodic changes in contribution rates, inflationary and deflationary effects of contributions from one source or another, accumulation of contingency reserves, etc.

(d) financial assurance of access to a general practitioner and, as needed, to any available specialist, laboratory, or hospital service.

Finally, it could open a new chapter for progress in national health. The modern attack on preventable morbidity and premature mortality demands easy access to the physician and, through him, to all the other resources of modern medicine. Comprehensive national health insurance could make this fundamental requisite of modern public health practical and real.

The potentials of national health insurance can be realized whether the insurance system starts with a full spectrum of benefits or with only one, two or three and adds the others in successive stages, provided the design of the early stages does not compromise the ultimate objectives.

## 8. *What Is the Alternative to National Health Insurance?*

It is neither difficult nor dangerous to venture predictions of what's ahead if we continue to rely mainly on voluntary insurance.

Voluntary insurance of the kinds now predominant will increase in population coverage, but—measured against the total need—will continue to provide limited and meager insurance protection.

Plans that furnish comprehensive protection will increase in number and coverage, especially under prodding from labor and management; but they will continue to be quantitatively unimportant.

Well-organized group practice plans will again and again “demonstrate” their ability to provide sensible and satisfying comprehensive services, to improve quality and adequacy of care, and to achieve professional and financial economies; and they will continue to be exceptions if not rarities on the American medical scene.

Shortages and maldistributions of personnel and facilities will continue, and may even increase.<sup>13</sup>

<sup>13</sup> Under present-day voluntary insurance, there is relatively little aid from one area to another. Indeed, the areas least well equipped with medical resources are probably subsidizing the areas that are better off, because premiums tend to be uniform but benefit expenditures tend to be relatively lower where medical personnel and facilities are meager or lacking. And the concentration of insurance coverage in metropolitan, urban, and suburban areas probably tends to augment—rather than to diminish—maldistribution of medical resources.

Professional educational institutions will continue to have inadequate capacity to produce the personnel we need and can support, and they will continue to struggle with recurrent or continuing financial crises.

At the same time, we will have an ever-growing number of more or less separate and uncoordinated public programs financed by general tax revenue. They will seek—and they will find—tax support to provide services for particular population groups and diseases.

Despite the counterpressures of tax-sensitive citizens, anti-tax-leagues, and similar groups, at least hundreds of millions and perhaps billions will be added to the \$3.5 billion we now spend from general revenues for civilian public medical services and facilities.

In short, I believe that in our high-level expanding economy, with our achievements in education, the public will increasingly demand and it will receive the benefits of modern medicine and public health measures, and adequate protection against medical costs. They will be served, because they will be able and willing to pay the costs. If an adequate insurance approach is denied the public, I believe they will inevitably support expansion of the public services—just as the British public supported a national health service to supersede an inadequate insurance system.

The pattern of social insurance is sound because it provides for common need while preserving and fostering the dignity and self-respect of the individual. Since most of our present public medical services are conditioned on a means test, they do not meet these criteria. Such a test cannot be avoided for those who need public aid for other necessities, but it should not be necessary for medical care alone. Without adequate insurance, I expect waves of public pressure that will dilute the means test and finally wash it out of our public medical services. There are some who would welcome that course; but I believe the public would prefer to be served through contributory social insurance, with its built-in financial stabilities and its safeguards for those who provide and those who receive services.

Thus, if we agree on the need for wider use of insurance in financing health services, we find that voluntary insurance cannot meet our national



needs. We then consider voluntary versus compulsory insurance. But it soon becomes evident that this is the form in which the immediate issue is presented to us. For the long run, the choice before us is, rather: Shall we go forward relying mainly on contributory social insurance? Or shall we pursue a policy of supporting limited voluntary insurance and inviting expanded tax-supported public services?

## Appendix

### NOTE A

#### *The Responsibility of the Principal Medical Services for Variations in Costs*

The view expressed in the text is generally accepted—that six kinds of medical costs create financial burdens and that insurance protection cannot be comprehensive and sure unless it applies to all six (physician, hospital, dentist, nurse, laboratory, and expensive drugs and appliances—the last probably accounting for about one-third of expenditures for all drugs and commodities). The historical proof of this view is little known, however, and may be worth review.<sup>14</sup>

An extensive study in 1928–31 showed that the average annual cost incurred privately for medical care by an average family was \$108. The average varied according to the level of family income, from \$49 for families with less than \$1,200 a year to \$503 for those with \$10,000 or more—from 5.9 percent of income at the lowest levels to 4.2 percent at the highest.

The study showed that the five main groups of costs incurred at that time (those for physician,

hospital, dentist, nurse, and medicines) were responsible for 92 percent of the total costs, and that the first four, accounting for 79 percent of the total or \$86 per family, were mainly responsible for the uneven and burdensome costs.

If the total costs were to be made budgetable by the families, average costs had to replace individual costs for all four kinds of variable and burdensome costs. This conclusion emerged from a comparatively simple statistical experiment. For each family within an income group, the average cost for each kind of service was substituted for the actual cost it had incurred during a year, and the resulting total cost for the family was measured against its income. In order for at least 90 percent of the families in the group to have costs that they could have managed within their annual income, average costs would have had to replace individual costs not for any one, two, or three, but for all four services.

Illnesses involving hospitalization at one stage or other accounted for about one-half of all family costs. Averaging the costs for these illnesses, however, solved the problem for only 36–56 percent of the families (depending on the income level), because only about 20 percent of the families had hospitalized cases in a typical year.

This analysis applied to costs incurred without group payment, and without allowance for the larger amount of care and the consequent higher total costs that presumably would be associated with comprehensive group payment. It may be assumed that the receipt of more comprehensive care than was actually obtained by the surveyed families, and the incurring of larger costs, would only have strengthened the conclusion.

The total size and the composition of private expenditures for medical care have undergone some important changes in the past 20 years. [See below.] From everything we know about current costs and their impacts, it appears that if we could make a statistical analysis of private medical expenditures today, like that we made 20 years ago, it would undoubtedly show that laboratory and related services and certain medically important drugs and appliances play a

<sup>14</sup> *The Incidence of Illness and the Receipt and Costs of Medical Care Among Representative Family Groups*, by I. S. Falk, M. C. Klem and N. Sinai. Chicago, 1933, pp. 215ff. Summarized in *The Costs of Medical Care*, by I. S. Falk, C. R. Rorem and M. D. Ring, Chicago, 1933, pp. 122–134.

larger role in causing uneven and burdensome medical costs now than they did then. And it would probably show that, if individual family costs are to be made budgetable and bearable, the averaging of costs has to apply to all six kinds of costs—physician, hospital, dentist, nurse, laboratory and related services, and about one-third of costs for drugs and appliances. These six accounted for about 80 percent of private expenditures for medical care in 1951 (exclusive of the net cost of insurance).

### Changes in Total Expenditures

Total private expenditures were about \$3.0 billion in 1929. They declined to about \$2.0 billion in 1933, and then rose gradually but continually to about \$8.8 billion in 1951. Per capita private expenditures were about \$25 in 1929, they were down to \$16 in 1933, and were over \$58 in 1951. Despite these wide swings in absolute amounts, they have remained in relatively stable relation to potential paying power measured by national income, total personal consumption expenditures, total personal income (before taxes), and disposable personal income (after taxes). This is illustrated by the tabulation below.

### Private Expenditures for Medical Care

	1929	1933	1951
Per capita expenditures.....	\$24. 83	\$16. 06	\$58. 36
Percent of:			
National income.....	3. 5	5. 1	3. 2
Personal consumption expenditures.....	3. 8	4. 4	4. 2
Total personal income (before taxes).....	3. 6	4. 3	3. 5
Total disposable income (after taxes).....	3. 7	4. 5	3. 9

(Based on national data, Department of Commerce.)

### Note B

### Recent Trends in Hospital Costs and Insurance Protection

Data are not available to measure to what extent—if any—the principal kinds of voluntary insurance are becoming more comprehensive in the insurance protection they furnish to those whom they insure. The following two tables were prepared from the limited data available with respect to hospitalization insurance only. The first table refers to Blue Cross plans; and the second to commercial group insurance contracts.

Blue Cross Hospital Insurance Enrollment, Premiums, Benefits and Protection: 1946–51

Year	Average expenditure by hospital per case <sup>1</sup>	Average patient income per hospital case <sup>1</sup>	Average Blue Cross premium per enrollee <sup>2</sup>	Average Blue Cross benefit per enrollee <sup>2</sup>	Average Blue Cross benefit per admission <sup>3</sup>	Average insurance protection (5) ÷ (2)
	(1)	(2)	(3)	(4)	(5)	(6)
1946.....	\$88. 35	\$77. 09	\$7. 49	\$6. 16	\$55. 43	Percent 71. 9
1947.....	95. 42	86. 67	8. 93	7. 64	67. 05	77. 4
1948.....	119. 51	104. 98	10. 18	8. 69	74. 27	70. 7
1949.....	121. 12	108. 64	11. 28	9. 53	80. 71	74. 3
1950.....	130. 05	116. 89	12. 15	10. 71	88. 55	75. 8
1951.....	140. 48	129. 09	13. 21	11. 87	96. 52	74. 8

### INDEXES

Year	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
1946.....	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
1947.....	108. 0	112. 4	119. 2	124. 0	121. 0	107. 6
1948.....	135. 3	136. 2	135. 9	141. 1	134. 0	98. 3
1949.....	137. 1	140. 9	150. 6	154. 7	145. 6	103. 3
1950.....	147. 2	151. 6	162. 2	173. 9	159. 8	105. 4
1951.....	159. 0	167. 5	176. 4	192. 7	174. 1	104. 0

<sup>1</sup> Average hospital expense per patient-day (col. 1) or average patient income per patient-day (col. 2) in general and special short-term nonprofit hospitals multiplied by average duration of stay in these hospitals. A. H. A. *Hospitals*, Administrators Guide Issue, June 1952, pp. 9 and 15.

<sup>2</sup> Premiums and benefits divided by average enrollment (average of beginning and end of year). From Blue Cross Financial and Enrollment Reports.

<sup>3</sup> Total benefits divided by admissions per year. Admissions obtained by applying admission rates to average enrollment.



## Group Commercial Hospital Insurance Enrollment, Premiums, Benefits and Protection: 1946-51

Year	Average expenditure by hospital per case <sup>1</sup>	Average patient income per hospital case <sup>1</sup>	Average group hospital insurance premium <sup>2</sup>	Average group hospital insurance benefit <sup>3</sup> (losses)	Ratio of average insurance benefit per insured to patient income per hospital case (4) ÷ (2)
	(1)	(2)	(3)	(4)	(5)
					Percent
1946.....	\$88.35	\$77.09	\$7.06	\$4.94	6.41
1947.....	95.42	86.67	7.92	5.54	6.39
1948.....	119.51	104.98	7.97	5.58	5.31
1949.....	121.12	108.64	8.51	6.33	5.83
1950.....	130.05	116.89	10.05	6.90	5.90
1951.....	140.48	129.09	10.50	10.13	<sup>4</sup> 7.85

## INDEXES

1946.....	100.0	100.0	100.0	100.0	100.0
1947.....	108.0	112.4	112.2	112.1	99.7
1948.....	135.3	136.2	112.9	113.0	82.8
1949.....	137.1	140.9	120.5	128.1	91.0
1950.....	147.2	151.6	142.4	139.7	92.0
1951.....	159.0	167.5	148.7	205.1	<sup>4</sup> 122.5

<sup>1</sup> Average hospital expense per patient-day (col. 1) or average patient income per patient-day (col. 2) in general and special short-term nonprofit hospitals multiplied by average duration of stay in these hospitals. A. H. A. *Hospitals*, Administrators Guide Issue, June 1952, pp. 9 and 15.

<sup>2</sup> Premiums and average enrollment from Life Insurance Association of America yearly chart of Group Accident and Health Insurance in the United States.

<sup>3</sup> Based on estimates (Social Security Administration) for 1946-48 and on data furnished by the Health Insurance Council, representing the insurance companies, for 1949-51.

<sup>4</sup> Concerning these unusually high figures for 1951, account must be taken of insurance company operations at net loss in that year. See footnote 4 in Note C, following.

## NOTE C

## Administrative Costs of Health Insurance

We have estimated that national health insurance would involve administrative costs equal to about 5-7½ percent of benefit costs.<sup>15</sup> Compare this with the net costs of voluntary health insurance in the United States:

	Net cost as percent of earned income	
	1950 <sup>1</sup>	1951 <sup>2</sup>
All voluntary insurance.....	23	19
Nonprofit plans.....	14	12
Blue Cross.....	12	10
Blue Shield.....	22	16
Independent plans.....	10	13

<sup>15</sup> *Medical Care Insurance. A Social Insurance Program for Personal Health Services*, by I. S. Falk et al, Report from the Bureau of Research and Statistics, Social Security Board, to the Committee on Education and Labor, U. S. Senate, Committee Print No. 5 (79th Cong., 2d Sess.), July 8, 1946, 185 pp.

	Net cost as percent of earned income	
	1950 <sup>1</sup>	1951 <sup>2</sup>
Commercial insurance.....	34	26
Group.....	23	<sup>3</sup> 11
Individual.....	47	48

<sup>1</sup> *Social Security Bulletin*, December 1951, table 3.

<sup>2</sup> *Ibid*, December 1952.

<sup>3</sup> This unusually low figure for this class of insurance may be peculiar to the experience of the year 1951. It may reflect unusually high "loss ratios" (i. e., benefit payments) rather than unusually low administrative and other operating costs. This is suggested by the available data on commercial group accident and health business (including wage-loss as well as medical benefits). The 15 companies with the largest amount of business in 1951 account for 84 percent of total earned premiums. In 1950, their net gains from underwriting were 9.6 percent of earned premiums; in 1951, they were 2.8 percent. Six of the 15, with about 45 percent of total premiums earned by the 15 companies, operated at a net loss; and their net losses equalled 1.2 percent of their aggregate earned premiums, though in 1950 they had net gains of 6.0 percent. (*Argus Casualty and Surety Chart*, 1951, 1952.)

Compulsory (social) insurance for medical costs could operate at lower administrative cost because it would have substantially no selling costs, no new costs for collection of premiums, no profits,

and no commissions for brokers, agents, etc.; it would need only a single contingent reserve, and it would build many of its administrative structures on an existing, efficient, large-scale operation (OASI).

If there is any doubt about the ability of Government to administer compulsory insurance efficiently, at lower net cost than private competitive insurers, compare the net cost of 2.3 percent (and the 14,000 employees) for OASI<sup>16</sup> with the net cost of 17.7 percent (exclusive of taxes) (and the 345,500 full-time personnel) for the private life insurance industry<sup>17</sup>—keeping in mind that the public and private systems are roughly of the same total size in value of life insurance protection, the public system is vastly larger in annuity obligations, and the public system has to administer much more complicated insurance contracts.

## NOTE D

### *Needed Changes in Voluntary Health Insurance, and Costs*

It may be worth noting more specifically just what voluntary insurance would have to do in order to meet the national need for medical-care insurance.

1. With respect to coverage, it would have to reach not merely the 86 million persons reported as having some kind or amount of hospital expense insurance at the end of 1951 but a total of at least 125–135 million in the near future. To do this it would have to insure bad as well as good risks,<sup>18</sup> and the millions not readily covered by group insurance or by any insurance.

2. With respect to comprehensiveness of protection, it would have to increase the range and content of benefits to more than three times their present scope, measured in dollar value. An increase in population coverage from the 1951 average of 54 percent to (say) 85 percent would itself increase insurance protection from 16

percent to 25 percent of total private expenditures, exclusive of the net cost of insurance or from \$1.35 billion to \$2.13 billion. Protection against 80 percent of total private expenditures would require a further broadening of benefits by more than 200 percent. This would involve a fundamental change in the basic patterns or in the very nature of the principal insurance carriers, and the coordination or integration of those that sell various limited-benefit policies to achieve an approach to comprehensive coverage.

3. With respect to financing, it would have to mean the achievement of much broader, more secure, more stable, and more flexible sources of funds than are now used. Comprehensive insurance protection for 85 percent of the population would call for insurance benefits amounting—as a minimum—to about \$5.8 billion at 1951 levels (85 percent of \$6.8—which is 80 percent of \$8.5 billion), instead of the \$1.35 billion actually paid out for medical care benefits by all private insurance carriers in that year. This means premiums equaling about \$7 billion, instead of the \$1.7 billion received by the insurance companies in 1951. With expansion of 25 percent in services (and costs) under comprehensive insurance, it calls for benefit expenditures of about \$7.25 billion. Using the 1951 ratio of premiums to benefits (1.24), this requires premiums of at least \$9 billion a year. With present patterns of financing, contributions from insured persons and/or employers would have to increase enormously, with additional enrollment per se providing only a very small part of the increase.

## NOTE E

### *Methods Used in Estimating Costs for National Health Insurance*

The cost estimates for national health insurance were built up first by estimating the costs for each kind of benefit, moving successively from (a) present amount of services and present expenditures, to (b) expected increase in effective demand for services and in expenditures for each of the first years of insurance operation, and to (c) expected further increase in services and in costs in a subsequent year—5, 10, or 15 years later—after needed personnel and facilities have become available, the rise in effective demand has probably

<sup>16</sup> *Annual Report of the Federal Security Agency*, 1951, p. 38, or p. 22 of the annual report of the Social Security Administration, published separately. (The figure 2.2 percent in the official report—instead of 2.3 percent—is a typographical error.)

<sup>17</sup> *Life Insurance Fact Book*, Institute of Life Insurance, New York, 1952, pp. 42 and 45.

<sup>18</sup> Those in small establishments or self-employed, in rural and semi-rural areas, those with low earnings (white and nonwhite, aged persons, widows and orphans, unemployed and partially employed persons), those already ill or afflicted with handicaps, etc.



leveled off, and accumulated neglect no longer exerts large influence.

At the outset, existing resources must absorb the expected initial rise in effective demand for service except to the extent that their capacity for service can be increased or improved in the pre-operating preparatory period and in the first years of operation. The initial and early year benefits have therefore to be limited in various ways and the costs cannot be as large as they should be.<sup>19</sup>

Later, when guaranteed payments for service and special measures to meet shortages and to correct maldistributions have had their effects, resources are assumed to have larger capacity, benefits are assumed to be free of many initial limitations, and volume of service and costs are estimated at a higher level.

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<sup>19</sup> The recommended methods of paying for services protect against under-estimation of costs of the kind that occurred for certain services in the British National Health Service. Our recommended methods have built-in controls, somewhat like those in the British provisions for general practitioner (physician) services—for which the actual early-year costs have been only a little higher than the advance estimates before their Act came into force. Their advance estimate was £31.5 million for the first 9 months of operation (equivalent to £42 million for a full year); their actual expenditures were £23.8 million. In their fourth year (1951–52) expenditures were £48.4 million. With allowance for growth of population, the last figure was 112 percent of the advance estimate for the first year (1948–49).

The initial estimates are about 33 percent higher than current expenditures for the same kinds of services or commodities, though the percentages vary among the benefits; the estimates for an operating period 5–15 years later are about 35 percent higher than the initial estimates or about 80 percent higher than current expenditures.

Per capita insurance costs for initial and later years were developed in these ways, and were then applied to the estimated coverage of the insurance system, to give total costs. These, in turn, were applied to estimates of earnings that might be subject to insurance contributions (as in the case of old age and survivors insurance), to give the contribution rates.

The detailed estimates were originally completed in 1946, at late 1945–early 1946 price and income levels. For more recent years, they have been revised by using indexes of changes in prices and incomes.<sup>20</sup>

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<sup>20</sup> A detailed account of how the costs were developed is given in *Medical Care Insurance. A Social Insurance Program for Personal Health Services*, by I. S. Falk, *et al.*, Report from the Bureau of Research and Statistics, Social Security Board, to the Committee on Education and Labor, U. S. Senate, Committee Print No. 5 (79th Cong., 2d Session), July 8, 1946. The methods of adjusting the figures for price and income levels of more recent years are given in *Cost Estimates for National Health Insurance*, by I. S. Falk, *Social Security Bulletin*, August 1949 (Vol. 12, No. 8), pp. 4–10.

# THE POTENTIALS OF VOLUNTARY HEALTH INSURANCE

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My topic is: What is the Need and Potential of Wider Financing of Health Care Costs through Voluntary Insurance, and the Implications of Using Voluntary Insurance.

The costs of illness are uncertain, unpredictable, and untimely. Everyone recognizes this fact, but not everyone does something about it. The reason for this is that most individual or family expenditures for health care are in small amounts, \$2, \$5, or \$10, and these are paid for as they occur, just as we pay for most of our routine living expenses. Aside from life insurance and home building, financial planning is usually reserved for such items as television sets, refrigerators, and automobiles which we know will be expensive; yet, serious illness may well be of the same cost or budget dimensions and should have a higher priority in family planning. There is, however, one great difference between the two: A person can postpone purchasing a new household appliance or car until he is prepared to meet the payments; serious illness may come whether he is ready or not.

While the occurrence of serious illness cannot be entirely reckoned in advance, its costs can be relieved by group action in which many families contribute to a common fund from which those who are ill may draw in time of need. The uncertainty of a large expenditure is thus replaced by the certainty of a small one—the regular payment of an insurance premium. This, then, is the basis for voluntary health insurance. It is a method of budgeting ahead to meet costly illness. It is a system whereby individual costs are spread over a period of time by a group of people who voluntarily band together to protect themselves against the economic burden of sickness. It in-

volves both insurance principles and an organized system of premium payments. It might be well here to review the accepted insurance principles.<sup>1</sup> Briefly these are:

1. The risk must be subject to the laws of mathematical probability. In other words, it is necessary to be able to predict with a high degree of accuracy just how often the contingency insured against may occur.

2. There must be an insurable interest. The person insured (in some instances, the person who pays the premium) must be involved to the extent that he will lose financially upon the occurrence of the event against which he wishes to be insured.

3. There should be a large number of independent risks spread over a fairly large geographic area. The diversity of risks is necessary so that there will be a reduced possibility that a majority of the persons insured in a single plan would become sick at the same time.

4. The risk involved must be important to the insured party. If the contingency to be insured against is of little or no financial consequence to the insured, there is little need of carrying insurance on it.

5. There must be an element of uncertainty as to the occurrence of the event. If a person knows in advance that an event is going to take place at a given time, such an event does not lend itself to the principles of insurance.

6. The existence of the insurance should not have a tendency to increase the risk. This is sometimes referred to as eliminating the "moral

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<sup>1</sup> Abstracted from: Fundamental Requirements of Insurance Applied to Voluntary Prepayment Medical Care Plans. F. G. Dickinson, Ph. D., Bureau of Medical Economic Research, American Medical Association, Chicago, 1947.



hazard." An example often used in fire insurance is that it is unsound economically to permit the owner of a building to insure it for more than its actual value. In fact, most fire insurance is written in amounts less than the actual cash value in order to encourage the owner to exercise the known safeguards to avoid the occurrence of a fire. Carried into the realm of health insurance, the existence of the insurance should not increase appreciably the demand by the insured for health services.

7. The risk must be measurable financially. This requirement has to do with measurement from the standpoint of *cost* rather than with measurement from the standpoint of the number of occurrences from within a given number of insureds mentioned in the first requirement. The measurement of cost is of extreme importance due to the direct relationship between the benefit and the premium. If the cost of the benefit is unknown, it is impossible to establish an appropriate premium.

Within these principles—if we are to discuss financing through insurance rather than through taxation—consideration must be confined to those aspects of the health program or to those health services that are insurable.

These are, in the order of their insurability:

1. Hospital services.
2. Surgical services.
3. In-Hospital medical services.
4. Obstetrical services.
5. Certain necessary diagnostic services related to medical, surgical, and obstetrical services.
6. Home and office services, provided the insured is a co-insurer.

When these six services are reviewed in the light of the seven principles of insurance, it is quite obvious that the first three conform much more closely than do the last three. The occurrence and cost of the first three services to the individual are uncertain, unpredictable, and untimely. They are also sufficiently undesirable from the individual's (or patient's) standpoint as to be little abused. Yet, for a given group of the population, i. e., a large number of independent risks, the occurrence of these services can be predicted with a high degree of accuracy.

The fourth service, obstetrics, is sort of a hybrid, and while it does not conform with all of the prin-

ciples, it has been included within the scope of many plans, generally limited by a waiting period and sometimes by a maximum allowance.

The fifth service, diagnostic in nature, is reasonably insurable depending upon the closeness of its relationship to one of the first three services.

The sixth service, home and office care, is insurable only when the insured accepts responsibility for the routine calls for short-term illnesses, or when the nature of the illness or injury makes abuse of this service an unlikely prospect. It is probably cheaper for the individual to budget personally for the usual home and office calls for short-term illness or routine check-ups than it is to include them as a part of insurance benefits.

This is a brief and limited review of insurance principles and their relation to voluntary health insurance, but to me it seems important to specify what services are being discussed when we talk about voluntary health insurance. Many people continue to measure or evaluate voluntary health insurance with a yardstick designed for something quite different. A full discussion of the subject is attached. It is a statement prepared by Frank G. Dickinson, Ph. D., Director of the Bureau of Medical Economic Research, American Medical Association, and is entitled "Fundamental Requirements of Insurance Applied to Voluntary Prepayment Medical Care Plans."

Referring back to my subject—within these insurable benefits or services, where then is the need and potential? Need, it seems to me, is a very poor term to use. All of us have unsatisfied needs, probably for a myriad of services and things. Usually when need is discussed at some detached, faraway level, it becomes a subjective version of the rainbow's pot of gold. Such goals, it is true, are often based on didactic ultimates or objectives of best intention but are rarely fitted to meet the realities of life, at least in a democracy. Within a democracy the people are expected to determine and fulfill the great majority of their own needs from their own resources. The individual family head has the privilege of deciding whether he shall buy a television set for pleasure or an automatic dryer to ease his wife's labors; whether he shall spend his money on a car rather than on decent living quarters; whether he shall buy a "shot" of whiskey for himself or two quarts of milk for the children; or, in short, whether he shall buy luxuries instead of necessities.

Need in our economy is generally determined by demand and, of course, accompanying the demand

must be a decision as to its relative importance as compared to the need or demand for other goods or services. With the amount of money spent each year on non-useful goods and services as compared with that spent on useful goods and services, there still remains considerable work to be done in the field of health education so that there is a more judicious exercise of individual decision.

Returning to voluntary health insurance, then, what have the people of the United States shown that they want and are willing to buy? Here the American people have definitely voiced their own needs as they see them.

The early experiments in voluntary health insurance can be traced back to the middle 1800's and were concerned primarily with small isolated groups and with cash benefits for sickness and injury. The contribution of such experiments to present day programs and progress is too limited to be discussed here.

The early medical society plans (many of which are now known as the Blue Shield Plans) and the early Blue Cross Plans entered the field with reasonably comprehensive benefits. They were the result of the depression years of the 1930's and were specifically designed to meet the needs of the low-income groups. Over the intervening years, however, as their objectives changed to include wider and wider segments of the population (the middle income group, all groups, and finally individuals), their benefit scope was altered to meet the demands of the public.

This was definitely a period of experimentation in which the prepayment medical and hospital plans slowly and sometimes painfully learned what benefits were insurable, the amounts or costs required to carry these benefits, and the types of coverage the public was willing to buy.

If the past ten to fifteen years of experimentation in this field have shown anything, it is this:

The great majority of the American people want to stand on their own feet and pay their own way. They have shown a willingness to pay for the costs of minor illnesses, the occasional house call or office call, and even for the ordinary diagnostic procedures. They learned of co-insurance through purchase of insurance on their automobiles and understand its extension into health insurance. At the same time, the widespread publicity given to the progress being made in medicine, particularly in surgery and the "miracle" drugs, has lessened the public's fear of hospitals and operations, and has resulted in an increased demand for

in-hospital services, both medical and surgical. Here the costs have often been great and are likely to prove a real economic burden. To protect themselves against such serious economic loss, the great majority of our people have turned to voluntary health insurance.

It seems reasonable to assume, then, that within the insurable benefits providable under voluntary health insurance, the public has voiced its needs; that is, it has shown what it wants and is willing to pay for. It wants protection against other than routine health care costs and is willing to pay for such protection.

This is evident from the growth in voluntary health insurance over the past ten years.<sup>2</sup>

In 1941 it was estimated that 16 million persons had hospital expense protection. Today the number of Americans protected is over 85,900,000, or an increase of 430 percent in ten years.

The number of people in the United States covered by surgical expense protection (not including life insurance) is second only to the total persons protected against the cost of hospital care. When 1951 came to a close, over 65,500,000 people were covered—an increase of 20 percent during the year and an increase of 770 percent over the number (7,500,000) protected in 1942.

As of December, 1951, medical expense protection covered over 27,700,000 persons—an increase of 28 percent over the previous December's figure and 820 percent over the 3 million persons so protected ten years ago.

As a matter of fact, today and every working day, approximately 23,000 individuals in the United States are added to the rolls of those who protect themselves under voluntary health insurance.

This is certainly evidence that the public of this country has, and is accepting, a voluntary method of protection against health care costs. The public is accepting it today more than during any other period in the years of voluntary prepayment development, and there is every reason to believe such acceptance will continue.

I can recall, six years ago, when people in the voluntary health insurance field were speaking of a goal of 75 or possibly 90 million persons, while opponents laughed at the idea. Today with that goal reached and passed, opponents

<sup>2</sup> The enrollment statistics given here are from "The Annual Survey of Accident and Health Coverage in the United States" by the Health Insurance Council, June, 1952.



would still have us believe that the American people do not want voluntary health insurance, or even if they do want it, it is not good enough for them. There is no sense in arguing with these opponents. Many of us didn't learn the uselessness of argument with those who refuse to recognize the facts until we had listened to several United Nations television broadcasts in which, despite the facts laid before them, some delegates gave over and over again the same speech that had been rehearsed a dozen times. The American people have shown what they want and will buy. Who knows the potential in number of persons covered? The potential increases as our population increases and will also increase as better coverage is made available through the voluntary plans.

This growth in voluntary health insurance does not mean that any of the leaders in health insurance are satisfied to rest on such goals as have been gained. This is still a developing program, with experiments in process and other experiments waiting to be started.

The Blue Cross plans which have had singular success to date are still encountering problems. These are mostly problems of rising costs of hospital care, and therefore increased premiums. Three factors which influence costs are:

1. Inflation.
2. Inefficient management.
3. Abuse and over-utilization.

All of these are under study at present, either directly or indirectly, by the Commission on Financing of Hospital Care.

The Blue Shield Plans are also continually faced with problems in their efforts to provide better benefits to subscribers. The problems here range from the provision of service benefits to a specified income group, to the provision of special benefits for long-term or prolonged illness or unusually costly, short-term illness.

Private insurance companies are gradually offering better and better indemnity contracts, and are expanding both in regard to benefits and in numbers enrolled.

Along with these three primary insurers are a variety of types of direct-service plans, such as the Health Insurance Plan of Greater New York, Permanente, and the farm cooperatives, all striving to develop programs designed to assist certain groups of the public in meeting health care costs.

The potentials then concern all of these insurers

and must necessarily evolve as each completes present experiments and undertakes new ones. A second potential might well have to do with availability of voluntary health insurance. Ten years ago coverage was not readily available in all areas of the United States. Private insurance companies had limited contracts which were available, but only to large groups, and therefore were concentrated in the large industrial areas. Blue Cross was available in over forty States, but again usually only to the larger groups. Medical society approved plans had been organized in twelve States, but a number were not yet in full operation.

Today voluntary health insurance is available throughout the entire Nation and is offered to the public by four general groups: These are: <sup>3</sup>

1. 104 medical society sponsored or approved plans (including Blue Shield) together with six Blue Cross or Blue Cross coordinated medical care plans, in all 48 States, District of Columbia, and Hawaii.

2. 82 local Blue Cross hospital benefit plans, in the District of Columbia, Puerto Rico, and all States except Nevada and South Dakota. (This includes the six plans listed in Category 1.)

3. More than 500 private insurance companies, offering both group and individual medical and hospital benefit coverage.

4. More than 100 independent plans, including those sponsored by rural cooperatives, by industry, by employees, by union groups, etc. These plans are limited for the most part to the membership of the sponsoring group and are not open to the public at large.

The combined efforts of all of these various groups have resulted in a public awareness of voluntary health insurance second only to the public acceptance of life insurance.

Availability has not only been extended State by State, but it has also become more available to the citizens within each State. During the early experimental period most plans limited enrollment to groups, usually of 25 or more and sometimes of 75 or more persons. As experience developed, however, enrollment practices became more flexible. Today groups as small as five

<sup>3</sup> The following statistics are taken from "The Growth of Voluntary Health Insurance" by the American Medical Association, Council of Medical Service, 1952.

persons are frequently accepted. Individuals may enroll during community enrollment periods or through such organizations as the Grange and Farm Bureau. Some plans even accept individuals without relation to a risk spread. Even age barriers, which have long been a problem, are being raised so that older people may enroll and may retain their protective benefits upon retirement.

In view of these developments, it seems reasonable to assume that the availability of voluntary plans will continue to be extended in terms of both area and population.

Another potential should probably have to do with coverage or benefits, which in turn may be discussed under the six items listed as insurable services.

1. Hospital Services—The early hospital insurance plans generally offered 21 days of hospital care per calendar year. Over the years of experimentation, however, this has increased to 30 days, 70 days, and now many plans pay benefits for over 90 days, and in some instances 120 days. Many plans have also been expanded to provide the maximum number of days per illness or per hospital admission, rather than per calendar year. It seems reasonable to assume that, since 120 days' care covers the great majority of hospitalized cases—99 percent according to one study—this will generally be offered by hospital plans in the future.

The Blue Cross plans offer a variety of contracts but are generally assumed to offer service benefits. Barring a drastic change in conditions, it is likely that service benefits will continue to be offered, although a limited contract may also be available to those who prefer not to pay the service premium. I say "barring a drastic change in conditions," because service benefits were depression born for the purpose of providing hospitals with income, as much as to help the public meet hospital costs. Ward care was more prominent in early contracts than semi-private care, and the appeal for subscribers was made primarily to the "low-income group." Today, of course, the situation is quite different. The demand for semi-private room accommodations seems to be increasing, with ward accommodations becoming both smaller and fewer. This trend, plus inflation and the rise in hospital costs, has resulted in ever-increasing monthly premiums. For hospitals, continu-

ation of service benefits is a matter of paying costs. In 1950 the income of hospitals rose \$1.09 per patient day, while per-patient-day expense increased \$1.29 or a 20 cents loss differential.<sup>4</sup> To balance this becomes a question of raising premiums or collecting more money from patients. So far, premium increases have prevailed but there may be a limit to the premium which is salable.

Private insurance carriers are not likely to offer service benefits to any appreciable extent unless they are able to arrange necessary agreements with hospitals. As an alternative, however, they have and are experimenting with a variety of coverages offering almost any reasonable per diem allowance desired, as well as other benefits payable on an unallocated basis.

While the early hospital plans provided a very limited coverage for drugs and laboratory services, the tendency now is to include almost everything, except the cost of the most expensive drugs. And, of course, the expensive drugs of today become the inexpensive drugs of tomorrow and will tend to be included, while other new costly drugs take their places.

As far as hospital services are concerned, then, the potential is most flexible. The public will have a wide variety of choice, and individuals and families may protect themselves against the costs of the great majority of hospitalized cases. In view of the many experiments carried on at the present time, there is even much hope for the inclusion of protection against long-term hospital costs in the voluntary insurance programs.

2. Surgical Services—Early surgical benefits were limited in a variety of ways: by waiting periods, waivers on certain existing conditions, and other limitations designed to protect the program against unknown risks. Again, as in hospital services, experience has brought about continued liberalization in surgical benefits. This is particularly true of group contracts, where today most plans have only what we call the "usual exclusions," that is, services for industrial injuries or diseases for which Workmen's Compensation laws provide; services that Federal, State, or local governments provide; and such elective services as plastic surgery for beautifying purposes.

<sup>4</sup> Dr. Charles Wilinsky, former president of the American Hospital Association "Health Plans," September, 1951, published by Blue Cross-Blue Shield, Milwaukee 3, Wisconsin.



Not only has the number of surgical services increased but so, too, have the allowances for these services. Where several years ago most plans had maximum allowances of \$150 to \$200, it is not unusual today to find maximums of \$350 and \$500. This, of course, increases the allowances or indemnities for all surgical services, and to some extent has made up for recent inflationary trends.

As in the Blue Cross Hospital plans, a number of the medical society sponsored medical plans have, from their beginning, undertaken to provide surgical benefits on a service basis. Some, like the Medical Society Bureaus in Washington State, have full service plans for all subscribers; others have established income limits below which the subscriber receives service benefits and above which physicians may charge their usual fees. At present there are 24 service plans, 59 combination service-indemnity plans, and 27 cash indemnity plans among the 110 medical society programs.<sup>5</sup> It seems reasonable to assume that the service feature will continue where it is now in operation, and it may even be accepted by other plans.

The key here, is the income limit or limits adopted by the plans, as well as the adequacy of benefits in the light of such limits. The inflationary trend has caused the income limits set by many plans to fall far short of actually reaching the group or groups for whom they were intended. In other words, an income limit established ten, or even six years ago and which included, say, 50 percent of the subscribers, would quite likely include a much smaller percentage today. To the subscribers this seems most unrealistic. But to the physicians, and particularly where the plans have either not raised their physician allowances or have done so only recently, it was only reasonable that people who were earning two or three times what they had been earning when the income limits were adopted, should now pay more for medical services. I would guess the primary difficulty has been the misinformation released concerning Mr. Average American's prosperity. When you read that the average urban family earns \$4,650, you don't stop to think that a person who earns around \$100 a week today is no better off than one who earned about \$50

a week prior to World War II. I mention this, not as a criticism but because I really believe that those physicians who have opposed income limits have done so with what seems to them logical reasons. I believe that the future will bring a realistic approach to income limits and service benefits, but it may not come until we have a better understanding of the present inflationary trend.

3. In-Hospital Medical Services—The inclusion of these services is a fairly recent development in voluntary health insurance. Usually a flat per diem, or a stipulated allowance per physician-call is provided for a specified number of days. The per diem, the allowance, and number of days have all been increased as experience warranted until at present it is usual to find allowances of from \$3 to \$5 per day for calls up to 70, 90, or 120 days. However, because frequently the first few days are exceptionally expensive, a number of experiments are being tried to provide a larger allowance for the first week and tapering off to the regular allowance. For the most part, allowances for general medical care in the hospital are adequate and will undoubtedly be altered if conditions warrant.

4. Obstetrical Services—I shall not discuss obstetrical services in any detail. Most contracts provide a nine-month waiting period, although some have waived even this when large groups are involved or the groups or families have been insured previously. The above comments concerning service benefits are also applicable here.

5. Certain Diagnostic Services Related to Medical, Surgical, and Obstetrical Services—Diagnostic services per se are not normally insurable risks, but when they are necessary as a part of in-hospital medical care, surgery, or obstetrics they may be and are frequently included. Usually a dollar limit is placed on the allowance so as to make possible the determination of the premium. Among such services are X-ray, endoscopic examinations, electrocardiograms, and basal metabolism tests. The allowances, while not always adequate, are a step in that direction. Just how far voluntary insurance can go in this regard will depend upon experience.

<sup>5</sup> Voluntary Prepayment Medical Care Plans (Charts and Graphs) American Medical Association, Council on Medical Service, 1952.

6. Home and Office Services—The inclusion of home and office calls in voluntary health insurance has been the subject of much controversy. Actually, such services seem to be insurable, provided the subscriber assumes the cost of the routine calls or the first few calls in any illness. After all, a \$5, \$10, or even \$15 risk is hardly worth insuring, nor do most families need protection against such costs.

At the American Medical Association we have an insurance program for employees which recognizes this fact. It provides reasonably adequate protection when an illness or an injury requires treatment over an extended period. This plan pays \$3.33 per office call and \$5.00 per house call, beginning with the first treatment resulting from injury and the third call caused by illness. Benefits are payable for a maximum of 75 calls for any one injury or illness. For this the individual pays \$0.83 per month, or for the family the premium is \$2.50 per month. These amounts are, of course, in addition to the premium for the basic surgical and in-hospital medical benefits.

It seems reasonable to assume that some such plan for home and office care, with a deductible or co-insurance feature, will be generally available to groups and through individual enrollment programs.

This, again, is but a brief review of those services generally accepted as insurable. However, it should suffice to give some idea as to the potential for each service.

In addition to the problems involved in insuring against the cost of these six services, voluntary health insurance plans have concerned themselves with special medical cost problems. One of these problems concerns long-term illnesses. Here numerous and varied experiments are under way.

The California Physicians' Service, for example, has introduced what it calls a "catastrophic" rider to its regular contracts, providing payment up to \$5,000 or for a period of two years, whichever shall occur first, for medical care resulting from 23 specific diseases.

Other examples are the deductible plans that offer to pay for costs incident to health care on an unallocated basis up to a specified sum—\$1,000, \$3,000, \$5,000, or even more—provided the subscriber pays the first \$25, \$50, \$200, or possibly \$500. All sorts of variations in this idea are now under experiment. Actually, since the percentage

of subscribers requiring long-term care is small, it would seem that the best place for this type of coverage is as a supplement to the regular plans; that is, make the deductible sum large enough to start protection over and above the regular protection. The additional premium would be reduced, yet protection would be continued. There is little question but that the experiments in this type of long-term care coverage will yield surprisingly worthwhile results and will add to the strength of voluntary health insurance programs.

So far in this statement I have discussed the need for voluntary health insurance in terms of what the public wants and will pay for, and have outlined what seems to me to be the potential as concerns the availability of and the benefits provided by voluntary health insurance.

In regard to the implications of financing health costs through voluntary health insurance, I should like to make but two brief comments.

First, voluntary health insurance is in keeping with American tradition. It allows for free choice on the part of our people—a choice as to what, if any, type of protection they wish to buy—; it allows for the type of progress that only Americans have been able to attain through initiative, incentive, and competition; and it allows for local experimentation with each such experiment contributing its best to the development of more adequate insurance programs.

Second, the gains and progress in voluntary health insurance during the past few years should very definitely entitle it to an opportunity to work unhampered by disruptive activities of agencies of the Federal Government.

It has not had this unhampered opportunity because every organization interested in assisting in the growth of voluntary health insurance has been besieged by propaganda, threatened with Federal legislation, and forced to devote both energy and money in defense, money which might better have been spent in new experiments and improvements.

In concluding this statement, I should like to quote from the New York Academy of Medicine's Committee on Medicine and the Changing Order, "It is on a voluntary basis that the great progress in medicine has been achieved in the past, and it is thus that continuance of progress can best be assured for the future."<sup>6</sup>

<sup>6</sup> From "Medicine in the Changing Order", Report of the New York Academy of Medicine and the Changing Order, p. 226.



# UNMET NEEDS IN PUBLIC HEALTH SERVICES

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I believe that public health and therapeutic medicine should be considered together. We in public health have many responsibilities which deal with therapeutics and medical care.

For example, as State Health Officer, I operate six hospitals, build others, and operate about a hundred clinics, some entirely and some partly from State funds. The State Health Department purchases, as a third party, not only medical and hospital care but also appliances and expensive drugs. We operate medical care programs. We license hospitals and other types of medical facilities, and nursing and boarding homes for the aged. And in my State we spend over a half million dollars a year for training postgraduate physicians, nurses, and other personnel.

It is time to remember that public health is not alone concerned with what is called the basic seven services, as has been set forth in "America's Health". Public health is concerned not only with the prevention of the onset of disease and with the promotion of good or optimal health, but also with the use of mass techniques designed both for the prevention and control of the progress of disease and its associated complications, and with the prevention of unnecessary disability and death.

Public health, because of these changes, has brought about changes in the organization of new services which have come with it. And perhaps first we should consider the new programs which are coming into public health and which we must be prepared to handle in the future. The first of these are the chronic diseases, including cancer, heart disease, arthritis, and diabetes; the second is the promotion of the health of the aged; the third, accident prevention, which is one of the largest causes of death; the fourth, mental health; and fifth, the development of full-time local health units.

Simultaneously, some of the older programs are

continuing to expand, for example, (1) laboratory services, (2) health education, and (3) dental health, particularly fluoridation. In the meantime emphasis on some of the programs is diminishing, such as (1) control of communicable diseases, (2) venereal diseases, (3) tuberculosis, and (4) malaria and mosquito control. Thus, health departments are faced with the necessity of constantly evaluating their services so as to adapt them to meet changing needs. As new services are added, unfinished jobs must be continued in order to maintain the progress which has been achieved.

There also has been a changing pattern in the administration of Federal health programs. The past decade has brought many changes in the organization of health agencies within the Federal Government. Numerous bills have been introduced in Congress to effect further reorganization, in an attempt to bring together those agencies which are concerned with health programs. At this time I believe it is unlikely that the health activities of the military establishments will be separated from the Department of Defense and assigned to a civil agency. I feel it is equally improbable that the health activities of the Veterans Administration will be removed from that Agency. There is need, however, for some method of official and regular intercommunication between all those agencies as well as the health programs of such emergency agencies as the Civil Defense Administration and the Atomic Energy Commission.

Since the passage of the Social Security Act in 1935, the categorical grant-in-aid programs for health have grown in number. These grants have stimulated the development of special services, but at times have created an unbalanced program in that there are insufficient funds for general health work. In order to effectuate the objectives of these grants, it is essential that in all levels of government there be an effective general health program. Consideration, therefore, must be given, first, to the development of larger general health programs through increased grants-in-aid for this

purpose and, second, to the gradual combination, within general health, of these special categories as soon as they have furnished the necessary stimulus in the special field. Such a gradual transfer would still permit new categorical grants but the States and localities could plan a more effective and realistic approach. At the same time, the amount of official record-keeping which is required by the Federal agencies in order to convince Congress that funds are being spent for the purposes for which they are appropriated, would be greatly reduced. This combination of Federal grants-in-aid within a single general health program would be greatly enhanced if all health services were administered by a single Federal agency.

There is even greater need for the reorganization of the administration of health services in State government. Unfortunately, in States the number of agencies now concerned with State health programs has increased from a range of 6 to 18 in 1940 to a spread of 7 to 32 in 1950. This dispersion has made coordination and integration of health programs more difficult. Following the example set by the Federal Government, many States have developed special commissions which are studying the structure of State government. The reorganization of health services in the State government cannot bring within one agency all of the activities in the health field. While some can be concentrated within the State health agency, others may still continue to be activities of special agencies or other departments, as they are in the Federal government. There is need of coordination of all health programs, and some official method of intercommunication must be set up in order to avoid duplication and to offer full coverage of services. As new programs are added, their assignment should be carefully reviewed and made to existing agencies, rather than to create new units in State government to administer such new programs.

Most States have broad representation in their health councils or boards of health; but some need representation of consumers as well as providers of health services. In many States there is an additional need for the development of state-wide citizens' councils composed of civic and professional leaders whose sole interest is to improve health services.

In addition, there is a need for reorganization of the administration of local health agencies. In 1950, 1,540, or about 50 percent of the counties with a population of 106 million (70.7 percent), were

served with health departments reporting full-time health services. Thus approximately 50 percent of the counties with 30 percent of the population had no full-time local health services. Unfortunately, because of the many vacancies in established positions, only 24 percent of the population had enough full-time public health physicians in 1950 to meet the standards. Similarly, personnel needs in other groups, such as public health nurses and engineers, were also acute, so that only about one percent of the population received the services of adequately staffed local health departments.

The greatest need in the United States is the development of all of these full-time local health departments. Usually a population of at least 50,000 is the minimum which can afford to employ the necessary personnel. Since there are many local political jurisdictions which have insufficient population or insufficient financial resources to furnish their people with the desirable minimum health services, a pattern for the establishment of multi-county and town union health departments has been developed. In addition, there are many areas that have sufficient population and finances for a full-time health unit which are not reaping the benefits of modern preventive medicine and public health because of their lack of interest or lack of awareness of the benefits of a good health program.

The development of full-time local health units should, therefore, be the prime responsibility, not only of the local government authorities but should receive direct stimulation of State and Federal governments. There is need for an integrated national program of health education and information geared with State and local programs for the creation of the necessary motivation to accomplish this objective. The national voluntary organizations, such as the American Public Health Association, the American Medical Association, and the National Health Council, working with the Public Health Service and the State health departments and State voluntary agencies, can do much to promote the development and maintenance of full-time local health units.

In estimating public health financial needs for the Nation, consideration must be given to: (1) the status of peace or war, (2) the Nation's economy, (3) the impossibility of predicting epidemics, (4) the occurrence of a civilian disaster, such as hurricanes, floods and droughts, and (5) the development of new drugs, new methods of procedure, and new knowledge in the fields of



medical and social science and their application to the field of public health. With these qualifications in mind, trends in expenditures of the past two decades might be extended to the next two. It seems improbable, however, that projection of these trends would be valid. Depending upon the data used, the analyst can predict future expenditures for health that are either fantastically high or ridiculously low. Since the expenditures for public health are dependent upon so many factors and since so many appropriating bodies are concerned, there is no way of actually estimating the future financial expenditures for health.

One of the factors that will no doubt affect future expenditures for health is the demand for additional services which the public may make upon government. It may be expected, on the one hand, if there is a serious economic depression, that expenditures for all government services will be reduced. On the other hand, if people are not able to obtain necessary medical and hospital care in a depression, there may be a public demand for government assistance to make hospital and medical care available to those in economic need. If such financial assistance is made available from Federal, State and local governments, it would seem natural that such assistance should go through existing Federal, State and local health agencies.

If we do have a national catastrophe, we have on numerous occasions indicated to the hospitals and hospital associations the desirability of developing a long-term plan for payment of hospital costs, so that we do not have a repetition in this country of what occurred in England where the hospitals were literally taken over by the Federal Government.

In any health program, expenditures for medical and hospital care usually far outweigh expenditures for public health and preventive medicine, and yet, if the cost of hospital and medical care are to be kept at a minimum, it is only logical that all possible reasonable measures be taken for preventing illness and disability and for promoting optimal health.

May I add that I feel the President's Commission on the Health Needs of the Nation has been spending too much time on the consideration of methods of determining the payment for sickness and not enough time on determining what measures can be taken to reduce the risk of illness, if we are to have a good program to meet the health needs of the Nation. Any insurance company

would do anything it could to reduce risks. Why should we not then in this country do everything we can to reduce sickness and disability by promoting an optimal health program of the entire population?

There are many aspects of public health concerned with reducing the expenditures for sickness and disability, but I am restricting my remarks to a few of these.

(1) Prematurity. It has been mentioned before that maternal and infant mortality is not an important index as to the health status of a community. Better than these data is neonatal mortality, and the greatest cause is, of course, prematurity. Some local health departments and State health departments have entered into the field of prematurity prevention. Through these programs, large expenditures of money may be saved since the cost of caring for premature infants is so expensive.

(2) Accident Prevention. Accidents are the fourth leading cause of deaths of persons of all ages in the United States, and the most important cause of death among children of school age. An accident prevention program can result not only in decreasing medical care costs but also in decreasing the additional costs to the community in terms of disability, welfare rolls, and decreased tax revenue. In Massachusetts we are developing special programs for the prevention of home accidents, not only to children but also to adults.

(3) Early Case Finding. Because there are not enough physicians available to give everyone periodic physical examinations, it is necessary to utilize multiple screening tests which would pick up early conditions and result in sending persons with positive findings to their family doctor or to a clinic for a complete work-up and necessary early treatment.

(4) The Aging Population. A condition which involves all of us is the fact that we are getting old. As the component of the population over 45 years of age increases, the amount of medical care that the population will require is increased. Little, however, is being done to teach the older person how to live, even though that person may have certain minor infirmities or disabilities. We should do everything we

can through positive educational programs to teach these people to keep well and on the job.

(5) Home Medical Care Programs. A fifth method of reducing the cost of medical care, which is being resisted in many areas of the country, is home medical care. The hospital should be a community center from which flow not only preventive and health maintenance services but also home medical care. This would relieve the hospital of the burden of caring for persons who could be visited in their homes by the doctor, the visiting nurse, or by other medical and paramedical personnel.

There is, therefore, a need in the United States for the development of a more intensive program for public health. It is impossible, practically speaking, to measure the true worth of optimal health, and yet the happiness, contentment, the readiness to meet an emergency, the high morality of the population, and the prevention of human suffering and unnecessary death, are rewards of an adequate program of public health services.

With regard to Federal expenditures, of a total of \$3,243.8 million expended by Government for health and medical services during the fiscal year 1951, approximately one-third was spent by Federal agencies, and two-thirds by State and local government. Of the Federal expenditures, only about 8 percent were for public health purposes, the remainder being for medical and hospital care. Of the total expenditures for public health purposes in the country by government, the Federal disbursement was just over 10 percent, the remaining 90 percent being derived from State and local sources.

For the fiscal year 1953 appropriations to the Federal Security Agency totaled over \$314 million of which nearly \$285 million was for the Public Health Service and approximately \$30 million for the Children's Bureau. Nearly two-thirds of this appropriation of \$314 million is for grants-in-aid for which there is need for expansion. In addition, however, the Public Health Service has certain needs: (1) expanded research in the development, demonstration, and pilot studies of new public health programs, and (2) increased staffing in not only its public health personnel but also in its clinical and field research staffs. Increases in the Public Health Service must, however, be balanced with the demands for increased finances and personnel in State and local health

departments. Appropriations for the grants-in-aid administered by the Public Health Service have not as yet reached authorized maximums. As new grant-in-aid programs are authorized, such as chronic diseases, water pollution and occupational health, there is need for carefully balancing the new activities with the basic general public health services.

Similarly, the grants-in-aid administered by the Children's Bureau have not reached the authorized maximums which on several occasions have been increased. Because of the increased birth rate, it may be expected that there will be further demands for additional services. Simultaneously, the Children's Bureau will require assistance for the development and supervision of these new and increased activities.

As far as State expenditures are concerned, the State governments for the fiscal year 1949 expended \$944,677,000 for health purposes. Only 16.9 percent was expended by public health agencies, the remainder being expended as follows: 23.9 percent by departments of welfare, 28.3 percent by special boards or commissions, 10.3 percent by departments of education, and the remainder by other agencies. State health department expenditures increased from \$45 million in 1940 to \$159 million in 1950, a percentage increase of 251 percent. However, after allowance is made for increases in prices and wages, this increase was only 76 percent. The per capita expenditure for health by State government increased from \$0.35 per person in 1940, to \$1.06 in the 1950 survey. This apparent increase of 203 percent, because of the factors cited above, is an actual increase of only 51 percent. About two-thirds of the expenditures of State health departments are derived from State appropriations, 21 percent from Public Health Service grants, 10 percent from the Children's Bureau, and 2 percent from other sources. Analysis of these expenditure data reveals that there is considerable variation among the several States in both scope and intensity of their public health programs.

While different patterns of public health are needed in different parts of the country and while it is well to have each State develop programs to meet its particular needs, the variation of expenditures for public health services is greater than can be readily explained by variations in health needs. Ohio, Iowa, and New Jersey had an expenditure of less than \$0.50, whereas Rhode Island, Maryland, and Delaware had an expendi-



ture of over \$2. per capita. Any analysis of these differences must take into consideration so many variable factors that, without detailed knowledge of each State, it is impossible to estimate whether the expenditures reflect superior, average, or inferior public health programs. In general, an analysis of the financial data of State public health departments and expenditures indicate: (1) the need for an integration of the public health programs whenever possible in a single agency, as has been discussed before; (2) the need for study of the relative expenditures by the State health agencies and the local agencies to determine the proper apportionment of cost and responsibility as assigned by law and custom; and (3) an evaluation of programs and needs and of the development of some nationally accepted standards of State health services.

State health departments need additional financial support for: (1) financial assistance to local health departments; and (2) increased appropriations to meet the needs of the department, namely, (a) extension of programs, (b) intensification of existing programs, (c) needed salary increases, and (d) improvement of facilities. It may be estimated that an increase in appropriations for the decade ending 1959 may equal the \$100 million, if based on the 251 percent increase which occurred during the past decade.

Local expenditures should also be considered. In the United States Public Health Survey of 1950, over \$45 million was granted by State health departments to local health units. These funds were derived from Federal grants-in-aid to States and from State appropriations. Even with this assistance, amounting to less than \$0.30 per capita on the average, there were still many areas which were either unorganized as full-time health departments or had inadequate staff, primarily because of lack of essential financial support.

There was in 1949, and there will exist for some time to come, a need among local health departments for extensive financial help. This is perhaps the greatest need in developing the program for the coverage of the entire Nation with full-time local health departments.

In order to meet this need, the Local Health Services Bill was filed by Senator Saltonstall and others in 1947, and while this bill passed in the Senate through several sessions of Congress, it failed to be favorably acted upon in the House. If it is reintroduced and passed by both Houses, it

can materially assist by authorizing specific grants-in-aid to local health departments.

Under this Local Health Services Bill the cost of Federal payments would be approximately \$33½ million. The estimated State and local health expenditures, in order to match the Federal expenditures under this bill, would be over \$57 million. In many regions the local expenditures are far less than the amounts necessary to qualify for the Federal contribution. Such localities will have either to increase their local appropriations or depend upon a grant-in-aid from State appropriations. The \$90½ million total expenditure under this Bill assumes full coverage of the Nation by full-time local health units. This amount would not be required until the program is in full operation, and it has been estimated that national coverage may not be achieved for at least a decade.

The third great need in public health is personnel. All levels of government are suffering from acute shortages due in part to an actual shortage of trained candidates and in part to low salaries.

The Health Resources Advisory Committee of the Office of Defense Mobilization together with the cooperation of the Public Health Service and other agencies, in a survey made in 1951 and 1952, confirmed the known shortages of trained public health workers and also identified specific critical situations arising from new shortages. In 1951, 10 percent of all budgeted positions for professional and technical personnel were vacant. Vacancies were most numerous in positions for physicians, nurses, and engineers.

Of budgeted positions for physicians, 443 were vacant. There were 1,062 positions for nurses and 303 for sanitarians reported vacant. These vacancies in budgeted positions represent only a fraction of the total need. To bring existing local health departments up to minimum standards, there would be needed nearly 1,000 physicians, more than 10,000 nurses, and about 1,600 sanitation personnel, including sanitarians and sanitary engineers. To extend basic minimum services in organized health units to the entire country there would be required another 1,600 physicians, 13,700 nurses, and 4,000 sanitation personnel.

The considerable numbers of public health personnel reported as having commissions in military reserves or as liable to call under the amended Selective Service Act presents additional problems. These public health workers may well be lost to official health agencies because of the needs of the Armed Forces. There is little hope that a

greatly increased supply of public health workers will be available while the mobilization for defense, with its extensive manpower requirements, continues. During the years to come, a demand of formidable proportions for trained public health personnel will build up, which even under the most favorable conditions will take years to meet.

The immediate need for personnel calls for prompt action along the following lines: (1) examination of present programs to obtain maximum use of personnel; (2) a national recruitment program designed to attract the most qualified personnel; (3) a review of professional and technical positions in public health with the avowed objective of (a) making these positions a professional challenge and (b) financially attractive; (4) intensified programs of intra-mural and field training with assistance to the training agencies, namely, the universities and public health departments for this purpose; (5) provision for the transfer of personnel from one agency to another within the States and between States and the Federal Government, with a simultaneous transfer of such continued employment benefits as vacation and sick leave allowance and seniority and pension rights; (6) the development of a medium whereby in times of civil disaster or war, public health personnel can serve their country in a position where maximum use is made of their abilities. This implies in many instances the development of devices for holding them in civilian public health agencies and recruiting new personnel trained to replace them as they are called into active military duty. Whenever, because of essential needs, such public health personnel are retained in civilian positions, they should not be deprived of promotional and retirement benefits in their civil service or merit systems.

Then there is the need for adequate public health facilities to be considered. Health departments often can be found in either the attic or the basement of a public building, rarely in ideal quarters. Too often the component parts of a health agency are scattered in several buildings, thus making it awkward for effective and economical administration, and for the citizen who seeks service from the health agency. Whenever possible, health agencies should be housed in suitable quarters which are adjacent to other agencies concerned with health programs. Many State health departments are working under the disadvantage of inadequate quarters and inadequate facilities, and even more of the local health departments

are finding themselves in dire need of adequate quarters. Under the Hill-Burton Program, local health departments may receive assistance in the construction of health centers, and at times such health centers have been combined with local hospitals. However, under the present ruling of the Public Health Service, such assistance in the construction of State health department quarters is not possible except for such units as laboratories and clinics. Thus, States are not able to benefit in bettering their physical facilities. There is a continuing and increasing financial need of State and local health departments in the construction of proper housing and also in the purchase of new office, clinical, and laboratory equipment.

The analysis of the needs of public health programs would be incomplete without mentioning research. Although research in general is being considered in a separate presentation, that needed for public health is not primarily research in basic sciences and their clinical application but it is research in the utilization of this knowledge and prompt application in public health programs. Too often there is a lag between discovery and application of the new knowledge which costs the public untold suffering and premature deaths. Thus, there is now a need for the development in the United States of a center, such as the Communicable Disease Center in Atlanta, for the investigation of public health methods of improving the health of the older component of the population and of those who are chronically ill. This center, located in a large metropolitan area, or a recognized center of medical and public health education, practice, and research, could apply the developments in clinical and basic research which are being investigated elsewhere, as in the National Institutes of Health and other clinic and research centers throughout the country. There is far too little experimentation in public health procedures and methodology.

In summary, public health practice has been rapidly changing in the United States because of the public demand for better services, the rapid development of the medical and social sciences, and the constantly changing population both as to age and distribution. As new programs are developed, old programs must be re-evaluated. Because of the dispersion of health services among many agencies in Government, there is need for coordination and reorganization. The greatest single need in public health is the coverage of the entire Nation with full-time local health units.



The next years can be expected to bring increasing demands for additional health expenditures, particularly for the development and maintenance of local health units. Another major need is for the recruitment, training, and retention of health personnel, and the maximum utilization of such

personnel in the highest professional capacity. The need for adequate facilities, including office, laboratory and clinic buildings, and equipment, will continue to increase. The final need is expanded research in the theory and practice of public health administration.

# UNMET NEEDS IN HOSPITAL SERVICES

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The 6,832 hospitals of the United States spent 3.9 billions of dollars in 1951 to furnish 474 million days of care to patients who were hospitalized and to provide approximately 50 million patient visits in their out-patient departments.

The complexity of hospital problems has developed because of the tremendous strides which have been made in medical science within the last decade. In addition, hospitals are striving to keep pace with advances which management has made through a scientific approach to their problems. Under difficult circumstances, hospitals have done an excellent job in keeping pace with advances in both medicine and industry.

The problems of unmet needs in hospital finance are definitely related to the advances which have been made in raising the standard of living in America. The people of the United States have expected and received bigger and better achievements. The impact of the television industry is an example of one development which has affected their living to a large extent within two short years. They are also expecting a growing and expanding hospital service. The hospitals of the United States have as their principal concern the care of the individual patient. Their purpose is to provide good care for everyone. They have recognized their responsibility in developing a growing service. As the people have purchased televisions, they will certainly support additional expenditures for better hospital care. The hospitals will provide this service economically and efficiently. Additional funds will be required so that the vast majority of the American people can pay the cost of this care and so that the funds thus provided can be spent for better and expanded hospital service.

The following comments are based on knowledge

which is presently available and on programs which have been developed through the combined efforts of people and associations who are interested in this problem. Of necessity, some of these observations will overlap discussions presented by other participants, but, insofar as possible, they have been limited to the hospital field.

## Need for Additional Income

Hospitals should receive total cost for the services they provide. This cost should include depreciation of buildings and equipment, research necessary in the management of the individual hospital, and education for the medical and paramedical groups.

1. Recent reports have shown that approximately one-half of the population of the United States is covered by some form of prepayment insurance for hospitalization. The hospital sponsored non-profit Blue Cross organization insures the majority of folks on a prepayment basis. Blue Cross has the philosophy of providing service rather than indemnity payments. It should be stimulated to continue to grow and expand. Self-employed and other people not eligible for this type of prepayment insurance should have it made available to them.

Efforts should be made to increase and expand Blue Cross on a voluntary basis within our voluntary framework so as to narrow the gap between patients who have difficulty in paying their hospital bills today and those who are entirely unable to pay their hospital bills.

2. A program to provide payment of the total hospital cost for the lowest income and dependent groups should be developed. There is general agreement that persons who are receiving public assistance are the responsibility of the Government, which should pay cost for their care when they are hospitalized.



Medicine has developed its own greatest problem. In 1950, approximately one-quarter of the population was forty-five years of age or over and received approximately one-half of the medical care provided. Using birth and death rates of pre-World War II and forecasting, it has been estimated that by 1980 about one-half of the population will be forty-five years or over; and, if they continue to receive the same amount of medical care that they are presently receiving, three-quarters of the care provided in that year would go to that age group. There is need for study and development of a program for paying the cost of quality care.

### **Need for Additional Expenditures**

1. Funds made available through the Hospital Survey and Construction (Hill-Burton) Act have already produced 1,000 new hospital facilities, with about 1,000 more in progress mostly in rural areas, throughout the United States.

These funds have had a salutary effect on hospital operations since they have been expended only through the development of statewide progress by state authorities and through the stimulation of local sources to provide funds which were partially matched by Federal aid. This is a sound principle for dispensing Federal funds.

This program should be continued. Studies are presently being conducted to determine the needs in urban areas, as well as in rural areas. Further consideration should be given to a higher priority for replacement and modernization of antiquated and inefficient hospitals in urban areas.

In all planning for construction, careful attention should be directed toward developing the hospital as the medical center of its community. In this way, new developments in medicine will be made available to the entire medical profession for the care of their patients, as for example, the greater utilization of expensive diagnostic facilities for ambulatory patients.

2. The decreased average length of stay and the increased complexities of medical care have developed many problems involving the utilization of personnel, both professional and non-professional, within the hospital. But hospitals are not bricks and mortar, they are people.

Hospital personnel must be assured a living wage and security. The present low payment

for hospital employees is one important factor which has resulted in shortages and has created difficulty in recruitment. Additional funds to provide a living wage and security will assist in alleviating this situation. This would make it possible for them to be employed to advantage within the hospital to provide economically the quality of care which the people in the United States are expecting. This would also assist in the recruitment and education of more professional people in the paramedical fields such as nursing, dietetics, medical technology, physical therapy, and others.

3. Integration of all hospital facilities within a geographic region is needed. Sixty-nine percent (69%) of the short-term hospitals of the United States have less than 100 beds—and for the most part are located in small towns and cities. The care which they provide within the area in which they limit their work, is in many instances as good as the quality of care provided in teaching hospitals today. Improvement can be accomplished through a program of integrating the services of all hospitals—large and small, rural and urban. It can be achieved without endangering individual freedom and initiative by encouraging social responsibility in the local community. Through the process of education, hospitals and patients can be made to realize the importance of integrating the services of large and small hospitals. Funds will be required to do this well.

4. Finally, an unmet need of great importance is the provision of additional funds for research and study in hospital administration and management. The hospital profession, in association with the medical profession and industrialists, would be enabled to study, evaluate, and apply information for the more efficient and economical utilization of personnel and supplies in the care of patients.

Such problems as the following require consideration:

What is the proper staffing pattern for good nursing service?

How should the food service be organized to be more efficient?

How should the small rural hospital be related to the large medical center hospital—and vice versa?

What is the proper method of developing a hospital rate structure?

How should the patient with long-term illness be cared for?

What are the minimum standards for good hospital care?

How can the hospital participate in home-care programs?

The American Hospital Association has plans for establishing an Institute which would carry on research and study and post-graduate education in hospital affairs.

In conclusion, it is clear that the American people have already indicated their willingness to support good hospital care for the individual patient as evidenced by the fact that they have the best hospital care available. I should like to say that if the people of the United States will support an expanding and growing program of medical care in hospitals, both bed and ambulatory patients, the hospital profession will provide the most economic and efficient service of the highest quality for the patients they care for.



# FINANCING MEDICAL EDUCATION AND RESEARCH

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Any intelligent consideration of American medical education must be based upon an understanding of the manner in which our medical schools function and of the responsibilities which they carry. This can be stated briefly as follows:

First, the schools, along with the operation of classrooms and class laboratories, are intimately associated with the rendering of medical service and the conduct of medical research. These activities are essential components of their educational programs, because they provide the frames of reference about which students can associate and organize the knowledge and interests that evolve out of formal study. If these frames of reference are to serve their purpose, they must make it possible for the students to assume responsibility for the care of patients and also for them to observe and often take part in the discovery and application of new knowledge.

Second, our medical schools must be active at all levels of physician education. These are: undergraduate education (the four years leading to the M. D. degree), which is required of all physicians and is not offered by any institution except approved school of medicine; internships and specialty training, which, while available in non-medical-school-associated institutions, have become an essential activity of our schools; and finally, postgraduate education (educational activity aimed at the physician in practice), which is steadily gaining in importance as a medical school responsibility.

Third, the same educational, service and research personnel and facilities that are essential to the education of physicians are also necessary for the education and training of other health and medical people. In addition, the same resources are frequently needed in connection with the educational programs of non-medical-student

groups. Consequently, a medical school, in addition to being responsible for the education of undergraduate medical students, interns, and specialty and postgraduate medical students, may find it necessary to assist with the education of dentists, nurses, veterinarians, biological and physical scientists, pharmacists, social workers, many categories of medical technicians, lawyers, clergymen, school teachers, and a miscellaneous assortment of college students.

All of this can be put another way: Physicians form the core of this Nation's health and medical resources. Our medical schools are indispensable to the education of these physicians. Physicians cannot carry their load of responsibility without competent teammates and helpers. It is in the interest of satisfactory service, then, that the education of a physician should take place side by side with these teammates and helpers; and all of this in the same environment in which the complete health team will ultimately function. This means that along with lecture rooms and class laboratories, medical schools must operate hospitals, clinics, and research laboratories, all of which, in addition to the education of physicians, are used in the training of many categories of health and medical service personnel.

If the schools are to discharge this broad spectrum of responsibility in an effective manner, they and their associated resources must receive adequate financial support. The balance of this statement represents an attempt to provide the uninformed with an understanding of the financial situation with which the medical schools are faced.

Before getting into the details of this discussion, however, it is important to point out that, with the responsibilities and activities of our schools so varied, extensive, and complicated, the difficulties in cost accounting are such that any comparison of costs between schools is most unsatisfactory and unreliable. This is particularly true when attempts are made to isolate and compare the costs involved in the education of any one category of students. As a consequence, the med-

ical school, rather than any one category of students, will be the focus of such consideration. This should not seem unreasonable, for, after all, it is the medical school about which the broad function of medical education revolves. **It is this total function that is important, not any one small part of it!**

It is the opinion of all medical educators that the passage of time is steadily emphasizing that the financial support of our medical schools is inadequate, particularly if the health and medical service needs of this Nation are to be met in a manner that is consistent with our expanding body of scientific and social knowledge. There are two sets of circumstances that can be pointed out as being responsible for this situation.

The first of these is hooked up with the simple fact of progress. Since 1920, phenomenal scientific advances have followed each other in rapid succession; to indicate a few: endocrinology, hematology, psychiatry, surgery nutrition, radiology, cardiology, and on down the line to such recent things as radioactive isotopes, the new antibiotics, and a better understanding of the virus diseases and the management of water and electrolyte balance. As far as medical education is concerned, these advances have called for complicated equipment, elaborate facilities, and more and better trained teachers. These advances have also called for improved teaching methods, the culmination of which has been reached in the full-time faculty; the teaching hospital, clinic, and laboratory; and the requiring of student responsibility in the care of patients and in the performance of research. All of this helps explain the nearly 400 percent increase in the cost of medical education during the past 30 years.<sup>1</sup>

Progress has always been and always will be something to be reckoned with in educational effectiveness; but in a field as important as medicine, it is essential that the gap between what is known and what is taught be kept as narrow as possible. At least, inadequate financing of the medical schools should not contribute unnecessarily to the widening of this gap. But this is just the thing that is happening.

In the period 1947-48, information submitted by the medical schools to the Surgeon General's Committee on Medical School Grants and Finances indicated that the most significant unmet needs as

far as their educational programs were concerned were in those areas in which the greatest strides were currently taking place: psychiatry, public health, preventive medicine, rehabilitation, industrial medicine, and the sciences basic to medicine, particularly biophysics, biochemistry, physiology, and microbiology. It should be of interest, then, to note that the expression of these inadequacies in terms of the annual financing needed for their correction approximated \$30 million.<sup>2</sup>

The Association of American Medical Colleges is currently conducting a survey in order that the situation, as it existed five years ago, might be re-appraised. So far, fifty-four schools have been heard from, and it appears that, while some improvement is in evidence, the same general problems persist. The schools' inadequacies include the same areas that have just been enumerated; and when these inadequacies are again translated into the annual amounts needed for their correction, an average of approximately \$250,000 per school is found. If this figure holds as the average for all schools, the total needed will stand at approximately \$20 million or \$10 million less than that needed in 1947-48.<sup>3</sup>

The last educational number of the Journal of the American Medical Association points out that in 1952-53, the medical schools of this country will receive \$45 million more for their instructional programs than was the case in 1947-48.<sup>4</sup> With this increase in sight, one might well wonder why the inadequacies that were so apparent in 1947-48 still appear to be interfering with the effectiveness of the work of the medical schools. In the first place, in five short years the wheels of progress have ground out advances in cardiac diagnosis and surgery, radioactive isotopes, and the adrenal hormones. Any medical school adjusting its physical plant, equipment, and personnel to these advances will find itself adding many thousands of dollars to its capital expenditures and annual operations.

To progress must be added the second set of circumstances which help explain the financial difficulties of medical education and also help explain why the addition of \$45 million of medical school income for the current year has not cor-

<sup>2</sup> The Surgeon General's Committee on Medical School Grants and Finances. Medical School Grants and Finances. Part II. Financial Status and Needs of Medical Schools, Public Health Service Publication Number 54. United States Government Printing Office, 1951.

<sup>3</sup> Communication from the Association of American Medical Colleges.

<sup>4</sup> Medical Education in the United States and Canada, Anders n. D. G. Manlove, F. R., and Tipner, A. Journal of the American Medical Association, 150 99. September 13, 1952.

<sup>1</sup> Medical Education in the United States. The Problem, The Cost, The Horizon. National Fund for Medical Education, Inc., Mar. 1, 1950. New York City.



rected the situation as it existed five years ago. The circumstances referred to here are those that have to do with our general economic situation—inflation, high taxes, and low interest rates.

Before enlarging upon economic trends as a factor in the under-financing of medical education, it is important to realize that there are two types of medical schools: first, those sponsored by State and city universities; and second, those sponsored by privately incorporated universities or those that in themselves represent private corporations. It is also important to remember that all income for all schools can be classed as coming from student tuition and fees, gifts and grants, interest from endowments, transfers from general university funds, and appropriations from State or city governments. In general, the publicly supported institutions derive the largest share of their income from appropriations; those that are privately supported, from gifts, grants, and interest from endowment.

The fact that since 1939 inflation has resulted in the near doubling of the cost of living has, of course, had an equal effect upon the financing of all schools. The other economic factors, however, have had a more selective effect upon each type of school.

In the case of the publicly supported schools (data based on 29 of the 31 four-year schools), while income from tuition, gifts, grants, and endowment is important, support from city or tax funds supplies the major share of the financing. In recent years, however, significant shifts in the relative importance of these various sources of income have taken place. Between the years of 1940–41 and 1947–48, the gross income from tuition increased slightly; that from gifts, grants, and endowments showed a slight decrease, while that from appropriations increased markedly. Percentagewise, all sources of income decreased, except that from appropriations which increased over the eight-year period from 50 to 76 percent.<sup>5</sup>

The situation for the privately supported institutions (data based on 37 of 43 four-year schools) is radically different. In 1940–41, tuition and fees, grants and gifts, and income from endowment constituted the main sources of income. The shift in the relation of these income sources over the next eight-year period is of significance,

in that while all revealed a considerable gross increase, each decreased precipitously as far as its percentage proportion of total income was concerned. It is of particular significance to note that in 1941 about 35 percent of the income came from endowment interest. By 1948 this dropped to a little over 20 percent—and this in spite of an increase of 21 percent in endowment capital. Another point of significance is the increase in the relative importance of transfers of monies from university general funds. In 1941, income from this source was of no particular moment, but it is apparent that by 1948 the decreases just noted were being made up largely by such transfers—an approximate gross increase of from one to eight and one-half million dollars and a percentage increase of from 7 to 34.<sup>6</sup> This is creating serious financial problems for many universities.<sup>7</sup>

What all of this means is that, as things now stand, the publicly supported schools must depend more and more upon the appropriation of public funds. As far as the privately supported schools are concerned, present trends are such, that as income falls short from tuition, gifts, grants, and endowment, their only alternative is to continue the depletion of their university facilities by asking for larger and larger transfers of general funds.

The final section of this statement will deal with possible ways and means of alleviating the financial problems of the medical schools.

Economy would always be considered as a means of relieving any type of financial pressure. It must not be forgotten that most of our medical schools have been practicing rigid economy for many years. In fact, it has been the need for rigid economy that has prevented many schools from instituting needed teaching programs and innovations.

Aside from economy, the only other way of improving any financial picture is to consider ways and means of increasing income. As far as medical education is concerned, there are seven sources of income that can be considered:

1. The medical schools might realize a profit from the sale of medical and hospital services. Very few schools are in a position to do this. From the practical standpoint, the medical prac-

<sup>5</sup> The Surgeon General's Committee on Medical School Grants and Finances. *Medical School Grants and Finances. Part II. Financial Status and Needs of Medical Schools.* Public Health Service Publication Number 54. United States Government Printing Office, 1951.

<sup>6</sup> The Surgeon General's Committee on Medical School Grants and Finances. *Medical School Grants and Finances. Part II. Financial Status and Needs of Medical Schools.* Public Health Service Publication Number 54. United States Government Printing Office, 1951.

<sup>7</sup> "Financing Medical Education," a statement by the Commission on Financing Higher Education, May, 1951.

tice laws of most States provide that a charge by an institution for medical or surgical services is unlawful. From the philosophical standpoint, most medical educators feel that the schools' primary business is research and education, and to direct their efforts in the direction of conducting a competitive business enterprise would detract from these main objectives.

2. The medical schools could improve their financial structure if they could be relieved of the necessity for contributing to the financial support of teaching hospitals and clinics. The functional overlap between medical teaching and medical service creates financial problems for many medical schools and their teaching hospitals. The financing of both could be considerably improved if the communities which benefit would provide more completely for the service phase of the medical schools' responsibility, particularly for the indigent patient load, which is so importantly involved. Difficulties concerned with cost accounting make it impossible to arrive at a figure which indicates the extent to which universities and medical schools underwrite the cost of operating their service facilities, but it is generally agreed that in the aggregate, the money involved amounts to several million dollars a year. The study conducted by the Surgeon General's Committee on Medical School Grants and Finances indicated that for the year 1947-48, at least \$3 million additional income would have accrued to the forty-six medical schools if their communities had provided for the complete support of the teaching hospitals.<sup>8</sup>

3. The medical schools could improve their financial structure if they could more nearly recover the cost involved in the operation of their research programs.

So far in this statement the financing of research has received very little attention. This is not to be taken as an indication that research is an unimportant medical school responsibility. Research is just as important a frame of reference for an educational program as is medical service. An understanding and appreciation of the manner in which new knowledge is discovered is just as important as is the under-

standing and appreciation of the manner of its application. If education for medicine is to be of maximum effectiveness, the student's responsibility in research is just as important as is his responsibility in service.

World War II and the struggles that are following in its wake are emphasizing the important part which research is to play in our national survival. As a consequence, research has rapidly assumed a place of first importance as a responsibility of our medical schools. These programs are important not only because of the new knowledge they uncover, but also because they provide a vehicle that is necessary for the education of physicians and medical scientists.

Between the years 1940-41 and 1952-53 the funds for research that will accrue to the medical schools will have increased from \$3,500,000<sup>9</sup> to over \$33,000,000.<sup>10</sup> This growth of research, as important as it is, is greatly complicating the financing of our schools of medicine. This is because of the fact that research grants fall far short of meeting the total cost involved. The difference must be financed by the schools. Here again, difficulties concerned with cost accounting make it impossible to determine the extent to which medical school finances are obligated, but it is certain that in the aggregate the amount comes to many millions of dollars a year.

Before leaving this question, it is important to point out another problem that comes out of the grant method of research support. Most research money comes to a school of medicine in the form of grants for specific pieces of research. The majority of these grants are made upon a year-to-year basis and can be discontinued at any time. As a consequence, most of the needed scientific personnel are employed for an indefinite period of time. This means that the security of these people is quite inadequate. If a school attempts to meet the situation by guaranteeing permanent employment, the resultant gamble that the necessary funds will materialize stands as an obvious threat to the long-range security of the institution's other responsibilities. The additional faculty which

<sup>8</sup> The Surgeon General's Committee on Medical School Grants and Finances. *Medical School Grants and Finances. Part II. Financial Status and Needs of Medical Schools.* Public Health Service Publication Number 54. United States Government Printing Office, 1951.

<sup>9</sup> The Surgeon General's Committee on Medical School Grants and Finances. *Medical School Grants and Finances. Part II. Financial Status and Needs of Medical Schools.* Public Health Service Publication Number 54. United States Government Printing Office, 1951.

<sup>10</sup> Medical Education in the United States and Canada. Anderson, D. G., Manlove, F. R., and Tipner, A. *Journal of the American Medical Association*, 150:99. September 13, 1952.



the system of research grants has made possible is an important factor in increasing the teaching effectiveness of our schools. If anything should happen to cause the schools to lose the services of these people, the results upon the average teaching and research program would be serious.

4. The medical schools might improve their financial structure by increasing tuition charges.

The changing part that tuition income has been playing in the picture of medical school financing has been discussed previously.

Any individual planning his finances for the study of medicine must take three things into account: the cost of living, the number of years involved, and tuition and fees.

The problems peculiar to living costs are self-evident and require no elaboration.

The time involved in completing the formal part of medical education deserves discussion. The minimum is eight years—three years of college, four years of medical school, and one year of internship. The time has come, however, when this minimum of eight years is not adequate. As a consequence, most physicians, on the completion of their internships, must plan to prepare themselves for one of the specialties or to take special training for general practice. This requires an additional training period of from two to five years. During the periods of intern and specialty training, the trainees are paid small salaries which rarely are adequate for complete support. Thus, the combination of increased living costs and the need to meet these costs over a period of from eight to thirteen years is something to be reckoned with.

Tuition, as compared with the total cost of obtaining a medical education, is of relatively minor importance; but since it represents an absolute cash outlay that must be taken care of at regular intervals during the four years of medical school, its payment stands out as a real item of expense. The average student fee for the current academic year for all schools will be \$623. This will be an increase of 165 percent over the average fee paid in 1939-40.<sup>11</sup>

Because of the fact that tuition increases are beginning to call for corresponding increases in

scholarship funds, practically all medical educators feel that tuition as a source of medical school income is beginning to reach the point of diminishing returns.

Finally, it should be pointed out that high fees, along with high living costs over so many years, are discouraging many well-qualified students from attempting the study of medicine.

5. Medical schools might improve their financial structure by obtaining larger appropriations from city and State governments. Tax-supported institutions have been receiving very significant increases in support from this source, and undoubtedly such increases will continue. It must be remembered, however, that a rubber band can stretch just so far; and with Federal and earmarked taxes interfering more and more with the general financing of many of our States and cities, the question of how much further a community can go in supporting its medical school is beginning to be a source of serious concern in many areas. A few privately sponsored medical schools obtain a portion of their support from city or State tax funds. The extension of this practice to more of the private schools is something to consider.

6. Medical schools might improve their financial structure by obtaining more and larger gifts, grants, and endowments.

As pointed out previously, this type of income has been of particular importance in the support of privately operated institutions. The manner in which relative income from this source has been diminishing during the past few years, has also been discussed. One additional point, however, needs to be made. Many gifts, grants, and endowment funds are given to schools of medicine with the stipulation that they be used to finance specific purposes or programs.

In the year 1947-48, half of the endowment funds of sixty-four medical schools were so restricted.<sup>12</sup> While income restricted to a specific purpose may frequently fit into a medical school's regular program and thus be entirely satisfactory, there are many instances where it would be much better if restrictions had not

<sup>11</sup> Medical Education in the United States and Canada. Anderson, D. G., Manlove, F. R., and Tipner, A. *Journal of the American Medical Association*, 150:99. September 13, 1952.

<sup>12</sup> The Surgeon General's Committee on Medical School Grants and Finances. *Medical School Grants and Finances. Part II. Financial Status and Needs of Medical Schools.* Public Health Service Publication Number 54. United States Government Printing Office, 1951.

been imposed. It is therefore important that as donors make gifts to schools of medicine, no limitations upon their use be imposed.

The recent activities of the National Fund for Medical Education and of the American Medical Education Foundation in raising funds for medical schools are of significance, not only in that they represent an effort to interest the general public in contributing to the support of medical education, but also in that these funds are to be given to the schools to be used in any way they think best in the interests of strengthening their instructional programs.

7. The financial structure of medical schools might be improved by subsidy from the Federal Government.

Federal Government subsidy has been given serious consideration as a means of adding to the support of our medical schools. At the present time, Federal funds, through the medium of the Morrill Act and from grants from several of the National Institutes of Health, are of considerable assistance to many schools.

While university and medical school authorities are by no means in agreement regarding further Federal aid as a matter of principle, it is probably safe to say that there is agreement to the effect that if Federal aid should materialize, it must be set up so as to provide sufficient funds upon a continuing basis, free of control, so that each school can maintain a hard core of security for its essential teaching, research, and service programs. It should be obvious that the preparation and passage of an Act that would satisfy both the Federal Government and university and medical school authorities as to these "musts" will be no small task.

It is not the purpose of this statement to discuss the arguments for or against the principle of Federal subsidy. The idea is mentioned here only to complete the survey of the various possible ways and means of improving the financing of medical education.

Before closing, it is important to point out that failure to give detailed consideration to the question of the expansion of our medical schools or to the addition of new ones has been deliberate. All medical educators feel that before such steps are given broad or intense consideration, the basic structures of the existing schools and educational programs should be properly strengthened through the provision of adequate financing. This is not to be taken, however, as a failure to recognize the need for expanded and new facilities. As evidence of the realization of this need, it can be pointed out, that in spite of financial vicissitudes, during the past ten years the freshman enrollment in the medical schools of this country has been increased by a little over one thousand.<sup>13</sup> This is equivalent to the first-year classes of ten average-sized medical schools. In fact, the figure takes into account three new schools that have been approved since 1942. Most medical educators believe that if sufficient funds for all medical schools could be made available, continuing increases in their enrollments, consistent with high quality education, will rapidly catch up with the need; particularly if to this can be added the enrollment of the new medical schools that will undoubtedly evolve if they, in turn, can be assured of proper continuing financial support.

The chief purpose of this report has been: (1) to provide the uninformed with a general conception of the place that medical schools must play in the broad setting of medical education as an important function of our society; (2) to point out that inadequate financing is preventing the schools from realizing the potential of which they are capable; (3) to explain the principal reasons for these financial difficulties; and (4) to outline the possible ways and means that can be explored if efforts to strengthen our medical schools are to be given serious consideration.

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<sup>13</sup> Medical Education in the United States and Canada. Anderson, D. G. Manlove, F. R., and Tipner, A. *Journal of the American Medical Association*, 150:99. September 13, 1952.



# FINANCING DENTAL SERVICES

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*Several official statements by the American Dental Association were presented to the Commission on the Health Needs of the Nation by Dr. C. Willard Camalier at the time of the Panel on Financing a Health Program. The statement Recommendations for Experimental Prepayment Dental Plan<sup>1</sup> by the Council on Dental Health of American Dental Association is given here.*

The past decade has witnessed many changes in the economic and social lives of the American people. Among other things, these changes have affected the fields of health, hospital, medical and dental economics. Voluntary nonprofit prepayment hospital plans have had a phenomenal growth during this period, and recently we have seen a similar development of plans for prepayment medical care. The growing demand for a wider distribution of health services has had its reaction in many interested groups and agencies, both public and private, as well as in Federal and State legislative bodies.

Dentistry is assuming an important role in contributing to the health of the public. The dental profession is concerned with the development and elevation of its standards of service. The profession is also seriously interested in making this service available to a greater number of people.

Through the efforts of organized dentistry, dental health service in this country has reached a level unsurpassed in quality and quantity by that of any other nation. The distribution of dental service to those able to pay prevailing private practice fees without financial hardship need not present any problem. Satisfactory

dental care programs for the indigent group have been developed and are being expanded. However, there remains a large segment of the population in the medium and low-income groups for which a more satisfactory dental service should be provided.

The Council on Dental Health of the American Dental Association recognizes that a lack of understanding of the relationship between dental and general health, the fear of pain, and procrastination have caused a certain percentage of the population to neglect their dental needs.

As a result of its interest in this problem and in line with the general policy of broadening the scope of health services to the public, the American Dental Association created the Council on Dental Health, and charged it, among other responsibilities, "to study the need and develop plans and programs for the provision of more adequate dental care for the public." One of the important phases of its work has been to study methods of meeting dental care costs and the possibility of applying the prepayment principle to dental service. Studies conducted along these lines have convinced the Council on Dental Health that the American people need not only better distribution of dental service, but also a method whereby the cost of such service may be paid for on a budget or prepayment basis.

The success of budgeting hospital and medical care costs during the past decade is evidenced by the increased demands of the public for further prepayment planning in the health field. To date, more than 37 million persons have enrolled in nonprofit hospital service plans and more than 18 million in nonprofit medical prepayment plans operated under the sponsorship of State and local medical societies. The records show a steady increase in their growth and expansion. This success of prepayment planning for health services and a public awakening to the value of dental health plus the unpredictable factors in dental care costs are responsible for the growing interest in similar provisions in "the dental" field. It is

<sup>1</sup> Source: American Dental Association. Recommendations for Experimental Prepayment Dental Plan. Journal of the American Dental Association, vol. 32, pp. 194-198 (Chicago, Illinois, February 1945).

thought that a plan for budgeting the cost of dental service should:

1. Provide a dental service that will contribute substantially to a higher level of dental health for its members.
2. Assure people in the medium and low income brackets of dental service without financial hardship.
3. Provide adequate fees to the dental profession for their services and stabilize the income of the profession.
4. Preserve the private practice of dentistry.

The Council on Dental Health is mindful of the fact that in the formation of a prepayment plan for dental care, so far as the insurance factor is concerned, dental care costs and related problems are not comparable in the true sense of the word with those of either hospital or medical care. It is believed that an individual who visits his dentist regularly and receives adequate dental care can budget the cost of his dental needs to a certain extent, whereas medical and hospital care costs are less predictable. Despite the lack of similarity among dental, medical and hospital care problems, the Council on Dental Health was able to gain considerable information from a study of the development of medical and hospital service plans. However, as there is not sufficient factual or statistical material to determine the feasibility of prepayment planning in dentistry at the present time, the only means by which we can know whether a prepayment plan for dental service is possible is actual experiment.

In consideration of these facts, the Council on Dental Health made a study of a majority of the existing medical service prepayment plans and of a number of existing hospital service prepayment plans. As a result of these studies, it is recommended that experimental dental service prepayment plans be inaugurated under the direction or supervision of component dental societies, under the following conditions:

1. The city or political subdivision selected should be of not less than 100,000 population.
2. The trial period should be twelve months.
3. The enrollment should not exceed 5,000 persons during this trial period.

4. The enrolled persons should represent a cross-section of employed groups within certain income limitations.

5. The plan should be offered only to groups of ten or more employed persons and through their place of employment on a payroll deduction basis.

6. A minimum of 60 percent of the persons in an employed group should be enrolled.

7. Sound enrollment procedures as followed by existing voluntary nonprofit hospital and medical service plans should be adopted.

The successful application of the prepayment principle in dentistry will depend largely on the dental needs of subscribers, on the amount paid by the subscriber, on the types and amounts of service provided under the plan and on the fee schedule of the participating dentists. The main objective of the experimental program is to obtain data on the relationship between these factors in a dental prepayment plan. It is proposed that the experimental program be financed by an underwriting fund in order that the participating dentists may receive the prevailing fee for service rendered in case the amount collected from the subscriber does not meet the actual costs during the experimental period. When actuarial data have been obtained, the monthly payment by the subscriber can be adjusted to make the prepayment plan self-sustaining. In addition, if surplus monies accrue, additional dental service benefits may be offered to the subscriber, since the plan will be operated on a nonprofit basis.

The recommended legal instruments to be used in connection with a dental prepayment plan consist of articles of incorporation, bylaws, the subscriber's application for a dental service certificate, the subscriber's dental service certificate and an application for registration as a participating dentist.

## Articles of Incorporation

The articles of incorporation establish a nonprofit corporation called the (name of state) dental service, to (1) maintain and operate a voluntary nonprofit dental service plan, (2) accept charitable or benevolent trust gifts or legacies or devices intended for the benefit of public health and



(3) collect statistics and data in connection with the operation of the plan that may be deemed of value to the community and to the dental profession.

The articles of incorporation provide that the membership of the corporation shall be composed of licensed dentists who are members in good standing of the state dental society and of such other persons as the board of trustees of the corporation shall elect to membership to serve as trustees, provided that at least two-thirds of the membership of the board of trustees shall be composed of dentists. The articles of incorporation further provide that the corporation shall be organized upon a nonstock basis and that it shall be financed from monthly payments received from individuals or groups of individuals who purchase dental service under the plan and, if necessary, from underwriting funds or contributions.

### ***Bylaws***

The bylaws establish provisions for the annual and special meetings of the corporation and the qualifications for membership on the board of trustees.

In addition to supervision and control of the business affairs of the corporation, the board of trustees has the authority to decide the scope of the services to be furnished subscribers, to adopt rates and fee schedules, to incur indebtedness under certain conditions, to invest funds and to delegate its powers to committees and officers of the corporation.

Provisions are established to determine the eligibility of subscribers and of dentists who wish to be registered with the corporation. The corporation does not assume the liability of a dentist arising from the dentist-patient relationship.

A dentist rendering service to a subscriber cannot make a direct charge to the subscriber for such services as the subscriber is entitled to under the plan, but payment is made through the corporation. Additional services, however, are financed through the arrangements made by the patient and the dentist.

### ***Subscriber's Application for Dental Service Certificate***

The formal request for dental service under the prepayment plan is made on a form provided for

that purpose. The application authorizes the employer to deduct the monthly fee from the subscriber's wages. The amount of the monthly fee, which is established by the corporation, varies with the income bracket classification and number of dependents.

### ***Subscriber's Dental Service Certificate***

If the subscriber is accepted by the corporation, a dental service certificate is issued to him upon the payment of a registration fee of \$1 plus the monthly fee. The certificate constitutes a contract between the corporation and the subscriber. The subscriber and his dependents then become eligible for the dental services that are specifically provided in the plan. Eligible dependents are spouse and unmarried children under 19 years of age living with and dependent on the subscriber for maintenance and support.

Dental services to which subscriber and dependents are entitled during the experimental period include (1) dental examinations limited to two per calendar year per person, (2) prophylaxis, limited to two per calendar year per person, (3) extractions, including the extraction of impacted teeth, (4) fillings, when amalgam, silicate and other cements are used, (5) treatment of diseases of the mouth, limited to patients under 19 years of age, (6) emergency treatment for the relief of pain, (7) treatment of jaw fractures and (8) X-ray service.

The following services are not included: (1) denture, bridge, inlay, crown, orthodontic and general anesthetic and house calls; (2) any service covered by workmen's compensation or employer's liability laws; (3) service rendered by or through any Federal, State or charitable agency; (4) service covered by reason of recipient's qualifying for veterans' benefits or benefits for dependents of veterans; and (5) dental service for a disease or injury to a subscriber or dependent for which he is confined to his home or to a hospital, and for which he is under treatment or anticipates the need for treatment at the time that application is made for this certificate.

If, in an emergency, while the subscriber or a dependent is outside the area regularly served by the corporation and not within reasonable access to a participating dentist, service covered by the certificate is rendered by a dentist not registered by the corporation, the corporation will pay to the dentist the prevailing fee established by it.

The subscriber or his dependent has the right

to select any participating dentist. A participating dentist shall have the right to decline or accept such subscriber or his dependents in accordance with the custom and practice that prevails in the private practice of dentistry.

The corporation reserves the right to change the rate and benefits on 30 days' written notice to the subscriber. The certificate is issued for a period of 12 months and is renewed automatically on a year-to-year basis subject to the right of cancellation by either party on 30 days' written notice.

As has been stated above, the amount to be paid by the subscriber and the types of service included in the plan are established by the board of trustees of the corporation. The board of trustees also determines the eligibility of the subscriber on a basis of income. The income limitations might vary in different localities and would be determined by local conditions. The following income limitations are presented here as examples: Persons eligible for dental service might be (1) a subscriber without dependents and whose net annual income exceeds \$1,800; (2) a subscriber who has one dependent and whose net annual income together with the net annual income of his family exceeds \$2,400, or (3) a subscriber who has two or more dependents and whose net annual income together with the net annual income of his family exceeds \$3,000. The net annual income is determined by an estimate of family income from all sources for the current calendar year. Participating dentists may make a charge to the subscriber for services not included in the certificate.

### ***Application for Registration as Participating Dentist***

All dentists who are licensed to practice in the State in which the prepayment plan is in operation and who are members in good standing of the State dental society are eligible to participate in the prepayment plan. Participation, which is voluntary, may be terminated by written notice at least 90 days prior to the effective date, provided, however, that any dental service undertaken for a subscriber shall be completed in accordance with the terms of the subscriber's dental service certificate.

The participating dentists receive payment from the corporation for the dental services included in the plan and in accordance with the fee schedule. The subscriber may elect to receive additional

service (example, inlay or denture), in which case a separate financial arrangement is made between the patient and the dentist.

In presenting this prepayment plan as an experimental program, cognizance must be taken of the fact that local laws and economic conditions would prevent the adoption of a uniform program throughout the country. The local dental society can best determine what provisions should be made at the outset or what adjustments may later be indicated in the subscriber's monthly payment, in the amount of service to be provided under the plan, in the subscriber's income limitations, and in the age limit for dependents.

In establishing the subscriber's payment rate, adequate provisions should be made for overhead expense and a reasonable contingency fund. The rate should also be consistent with present payments by the public for dental service in the area.

It is also important to emphasize that the State or local dental society will have the responsibility of establishing a fee schedule for the dental service to which the subscriber is entitled under the plan. These matters, of course, are details which can be given consideration as the plans assume a more concrete form.

### ***Postdental Payment Plans***

Dental societies and banking or loan institutions have established dental postpayment plans in order to assist persons with low income to finance dental care. The plan usually operates through a commission appointed by the dental society to act in all negotiations between the society and the participating bank. The postpayment plans have proven to be an acceptable mechanism for extending credit to a purchaser of dental care which permits him to make periodic payments following the receipt of dental treatment. These plans are growing in popularity in many areas of the country and at the present time dental care amounting to several million dollars is being financed annually under the postpayment method.

### ***Summary***

The need for finding a more satisfactory financing plan to meet dental care costs, especially for the medium and low income groups, suggests the desirability of establishing experimental prepayment dental plans. Although the successful application of the prepayment principle in meeting



hospital and medical care costs has been well established, present knowledge of the subject is inadequate to determine whether a similar budgeting plan can be applied to dentistry.

It is recommended that experimental dental service prepayment plans be inaugurated by dental societies. With proper management, it is believed that actuarial data can be obtained to analyze the now unknown factors of a prepayment system as they are related to dental care.

***A report on a Conference on Dental Care on a Prepayment Basis between members of the Council on Dental Health of the American Dental Association and representatives of Blue Shield Medical Care Plans as quoted from the Newsletter of the Council on Dental Health, November 10, 1952.***

"The approach to the question of dental care on a prepayment basis was crystallized when five

representatives of Blue Shield Medical Care Plans met with members of the Council on Dental Health in the Central Office of the American Dental Association in Chicago.

"The initial concept of prepayment health plans was protection from catastrophic illness, and the majority of dental services will not fall into this category, it was pointed out. Accordingly, it was agreed, it will be necessary to determine what dental services are insurable risks; to obtain enabling legislation in States where it does not exist; to initiate pilot studies of dental services on a limited, not a broad-coverage, basis, and to educate dentists and patients alike in the use of prepayment plans.

"As to the operation of prepayment dental care plans, it may be necessary for dentists to establish their own corporations and to purchase from Blue Shield and Blue Cross such administrative requirements as public relations, clerical and sales services. Thus, dentists would retain control over their own professional services."

# PROBLEMS AND PRESENT METHODS OF FINANCING HEALTH SERVICES

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You ask me to speak to a double-barrelled question. The first part of this question requests an estimate of "the inefficiencies of the present system of financing." May I enter a slight caveat to the word "system." I should prefer to use the phrase "methods of financing," because we have diverse and changing methods which, perhaps fortunately, have never been planned as a "system."

Financing is only a means to an end, and the end is to supply medical care. Now, while our approach to this subject is economic, we cannot consider medical care as an ordinary commodity, like ships or shoes, to be bought by those who have the price and not bought if they haven't the price; nor as an ordinary service, like barbering or golf instruction, where the seller feels no obligation to furnish the service unless the price is forthcoming. The profession primarily responsible for providing medical care has always accepted the obligation to supply it to those who need it, irrespective of their means. Moreover, society as a whole accepts a parallel obligation, expressed by a recent President of the United States who listed adequate medical care among "basic human rights." In considering the financing of medical services, therefore, the professional and the economic elements must both be taken into account and considered together.

To make a list of "inefficiencies" of the present system of financing requires that we first define the objectives with which our methods of financing must comply in order to be "efficient." The primary objective of financing is to deliver to persons, in accordance with their needs, preventive, curative, and rehabilitative medical services of good quality. This first objective of financing carries with it a second, namely, to support the

personnel and institutions that supply service, including their capital as well as current requirements, on a level consistent with high professional status and with service of high quality. A third major objective is *economy*: we want to attain these aims with minimum financial burden to individuals and to society. Finally, our methods of financing should promote an adequate supply of personnel and facilities and their geographical distribution in proportion to the needs of the people in each service area and region.

With these points in mind, may I offer a list of seven "present inefficiencies" in the financing of medical services:—

1. The basic and pervasive inefficiency is the predominance of the fee-for-service method of financing. By "fee for service" I mean payment by the sick person or his family, of fees or charges for services rendered, at or about the time sickness occurs. I do not refer here to fees for service as a method of remunerating physicians. This panel, I understand, deals with the financing of medical care by those who pay for it.

Two generations ago, when there was little specialization or hospitalization and when the powers of medicine were very limited anyway, the deficiencies of the traditional fee system did not matter much. Today, when prevention and rehabilitation are increasingly possible and care is increasingly expensive, these deficiencies matter a great deal. The fee-for-service method of payment is the chief cause of the financial burdens of medical care to individuals and families, and is one of the chief obstacles to adequate medical service itself. To summarize its "inefficiencies" briefly:

Financially, the fee-for-service method of payment by the patient brings uncertain and unpredictable costs upon individuals and families; facing all with anxiety; bringing some to distress or disaster; constituting a chief cause



of dependency. It may have been adapted to nineteenth-century medicine, but it is not suited for twentieth-century medicine.

Medically, fee-for-service payment by the patient tends to inhibit early diagnosis and preventive work for individuals; it violates professional tradition by tending to proportion medical service to the resources of patients rather than to their medical needs; it is a major cause of rural shortages of doctors, dentists, nurses, and hospitals.

I enlarge upon the deficiencies of the fee-for-service method because it is the fundamental inefficiency in our present methods of financing. Of course, I appreciate that inefficiencies are relative. Other methods of financing also have their plus and minus sides.

2. The second major "inefficiency" is spotty and un-coordinated financing by the general tax revenues of local, State and national governments. You are familiar with the facts that we now spend about \$3.5 billion a year on State medicine, a third of which comes from Federal and two-thirds of which comes from local and State sources; that the amount has multiplied over six times within 20 years and now constitutes a quarter of our total expenditures for medical care. The expansion has been by categories of disease and categories of needy or politically significant persons, and usually through diverse and often un-coordinated agencies even within the same State, city, or county.

There are wastes because of lack of coordination. There are gravely insufficient funds spent for some necessary functions, especially: public health departments; care of the mentally ill; care of the indigent, of chronics, and of migratory workers.

It is pertinent to note that tax-supported medicine and health insurance are the two chief substitutes for the fee-for-service method of financing. In most tax-supported medicine in the United States and abroad, physicians are employed on a salary basis by some unit of government. In most health insurance programs here and abroad, physicians remain self-employed practitioners. There are exceptions on both sides, but in the main this contrast holds. Will evolution in the United States be towards health insurance or State medicine?

3. A third major group of "inefficiencies" is in

our present means of health insurance. In the first place, we have failed to encourage the financing of comprehensive medical services through insurance. Nevertheless, some of the oldest established health insurance plans in this country, as well as some of the new ones which have been able to survive the opposition of medical societies, have demonstrated that comprehensive services of physicians and hospitalization can be furnished by consumer-sponsored plans, utilizing group medical practice, at a cost of about the same as the cost for the restricted services offered by a combination of Blue Shield and Blue Cross, or by what are called "liberal" group policies of insurance companies.

In the second place, instead of moving to comprehensive service, most of our recent financing through health insurance has been for limited medical services, pursuant to the well-advertised concept that health insurance is a financial mechanism for a financial end, instead of the correct concept that it is a financial mechanism for a medical end.

Third, the number of people covered is insufficient. The rather scanty data available indicate that the half of the population not now reached even by limited health insurance includes a large proportion of those who need it most. I do not believe that the deficiency in coverage can be attributed mainly to the "youth" of the plans. The Blue Cross movement is almost 20 years old. I would direct attention to the difficulty inherent in all voluntary plans selling at flat-rate premiums, of enrolling and retaining members from among low-income, self-supporting families, and from among persons not belonging to any organized groups.

Fourth, the organization of the types of plans dominant at present—Blue Cross, Blue Shield, and the insurance companies—does not supply motivation for full coverage of the population. The people who have the greatest stake in comprehensive services, economy of operation, and complete coverage of the population, are at present little if at all represented in the managing bodies of Blue Shield, Blue Cross, or the insurance companies. These people are the consumers of the services offered by health insurance.

During the last few years, popular familiarity with the idea of health insurance has so in-

creased as to make financially profitable the expansion of limited types of such insurance under commercial auspices. At this moment one hears that Blue Cross leaders are worried because of competition from the insurance companies. Will this competition stimulate these agencies to enroll a great many more people who have not been reached heretofore, or will it be mostly competition to get the cream of the present enrollment—the larger or low-risk groups? If voluntary and governmental bodies do not take prompt, vigorous steps to expand soundly conceived and properly organized health insurance plans, we may repeat in health insurance the medically dismal and financially costly story of medical care under commercial dominance in workmen's compensation.

I will state four more "present inefficiencies" briefly.

4. We have allowed wide disparities in the financing of medical services to develop between areas, not because of differences in the medical needs of their people, but largely because of differences in the wealth of their people.

5. We have allowed the development of health financing to be seriously hampered by laws, passed in many States, which place the control of even non-profit health insurance in the hands of special interests; which restrict the scope of hospital service or of health insurance because of the demands of special interests; or which hamper desirable forms of organization, such as group medical practice.

6. We have not financed the education of physicians, dentists, nurses, administrators and allied personnel in proportion to the needs for these various groups, nor have we increased our financing in proportion to the rising costs of all forms of professional education.

7. While the support of research from both private and public funds has increased greatly in recent years, we have stressed too much the investigations for specific purposes and have given too small a proportion of the funds to basic scientific research.

Now comes the second part of the question asked on the Agenda: namely, proposals to meet "immediate needs". While I have observed your emphasis on the word "immediate," I have

included five broad policies as well as 15 specific proposals because I am sure the Commission is concerned with fundamentals as well as with expedients.

### *The five broad policies are:*

1. Medical care for most of the American people should be financed primarily by the principle of insurance. The use of general taxation and fee-for-service payment by patients should be secondary.

This applies that if this were done, the main income of physicians and general hospitals would be from health insurance.

The enunciation and advocacy of this policy seems to me necessary to make any proposals for meeting "immediate needs" more than mere expedients. I hope the Commission will make vigorous affirmation of this policy, whether or not it makes any recommendations as to methods of realizing such a policy promptly.

2. Tax funds from the general revenues of local, State and Federal governments should supplement insurance for special purposes and for certain groups of the population.

3. A major and continuing objective should be the coordination of tax-supported services on all levels of government with one another, with services financed through health insurance.

4. Health insurance plans should be primarily on a non-profit basis; the organization and finances managed by those who use or pay for the services, and the medical aspects being the responsibility of the professions and the hospitals. Commercial health insurance is not thereby denied a place in health insurance plans.

5. For most of the American people, health insurance should be required by national law. A nation-wide plan is necessary in order (a) to attain adequate population coverage, (b) to avoid lapses in eligibility because of participants' change in employment or location, (c) to assist in raising the medical purchasing power of low-income areas, and (d) to provide the financial base upon which service units, voluntary or governmental, supplying comprehensive care, can develop more extensively and more rapidly than is otherwise possible.



By "service units," I mean not only individual practitioners, private groups, hospitals and clinics, but also non-profit health insurance organizations offering services (as distinguished from cash indemnities) and administered on a local or State-wide basis by either governmental or voluntary bodies.

In speaking of national health insurance, I refer to the responsible proposals which have been offered, not to a federalized, rigid, impersonal scheme which would not be and should not be enacted by any American Congress.

Observation of events and analysis of the forces at work have convinced me that we shall make only slight and spotty progress on the professional problems of personnel, organization and quality, unless we deal broadly and effectively with the economic problem, i. e., the financing of medical care. The experience of the last 30 years has shown that forward-looking physicians who approach the economic and social problems of medicine in a scientific spirit cannot by themselves make much progress against the extremely conservative policies of their organized profession. The active participation of the public is the only way through which such professional men can realize their ideals. Active public participation can be obtained only by promoting medical-economic measures which can obtain easy lay understanding and therefore enlist vigorous popular support. Of these medical-economic measures national health insurance is only one, but it is a major one.

If we do not have the financial base and the coordinating baits of some nation-wide health insurance plans, even if incomplete in coverage of population or of services at the start, I fear that the outlook is for State medicine. Without a broad and positive national program, I anticipate a mixture of commercial and non-profit, voluntary insurance which will be quantitatively insufficient and often qualitatively poor, plus the piecemeal but steady growth of directly-tax-supported medical and hospital care, growing for dramatic diseases and for politically potent groups, and taking over more and more segments unsatisfactorily covered by health insurance.

In speaking thus I recognize a fact with which everyone who has followed recent developments is familiar, namely, that the United States will not legislate a comprehensive plan of national

health insurance immediately nor all in one piece. American discussion and the experience of many other countries have made clear that there are several steps that must be taken, and a number of alternative steps that may be taken, toward the goal of a sound system of locally controlled medical services, nationally financed.

One of the essential preliminaries is to place our professional schools for physicians, dentists, nurses, and administrators upon a firm and sufficient financial basis, so that these schools may maintain and improve the scope and quality of professional education and be able to proceed to expand quantitatively as may be required by social needs. A similar requirement applies to two other fundamental facilities: our insufficiently financed and unevenly distributed public health services, and our still inadequate capital investment in the tools of modern medicine in hospitals, clinics, and health centers.

We should establish a firm policy wherein the nation must share with State and local governments and with voluntary agencies, in the financial support of these three types of basic facilities. Other national health legislation need not wait upon the full effectuation of this policy, but the degree of comprehensiveness of legislation must always have some relation to the personnel and facilities available. However, we must bear in mind that, through national health insurance or otherwise, a more adequate and stable base for financing the use of professional personnel and the operation of hospitals will, of itself, provide a powerful stimulus to whatever expansions and redistributions are required.

May I also point out that no responsible proposal for national health insurance has promised that all professional and hospital services shall be furnished to all those eligible to receive such care. What the responsible proposals do provide are (1) financially unrestricted access to those services and facilities which are reasonably available in each locality, and (2) practical stimuli towards the expansion and regional coordination of services.

In other words, national health insurance would not undertake to provide, in a sparsely settled county of South Dakota, which I visited recently, the scope of services that would certainly be included in New York City or San Francisco. It would however be contemplated that a man from the South Dakota county who needed a brain surgeon could get one through an organized

regional relation between the medical facilities of that county and a medical center where such a surgeon would be operating.

There are many ways of applying the national health insurance principle in stages. The coverage could be initially limited to industrial and commercial workers, with or without their families. An income limit excluding the top 10 percent of the population might be set. Scope could be initially limited to hospitalization only. "Directed gradualism" in another form would involve public aid to voluntary plans. I am not saying what is desirable. I am merely suggesting some of the steps that might be taken.

I am strongly convinced that it is important to develop quickly as many local units as possible that can furnish comprehensive medical care through group medical practice, supported by prepayment. In addition to groups under other auspices, it is most desirable that hospital and outpatient staffs be reorganized so that they too can function as group practice units. Such local units supplying comprehensive services could continue to function with unimpaired freedom under any national or State health insurance plan. As far as hospitalization is concerned, Blue Cross plans, with certain reorganizations would also be able to operate freely. With regard to the Blue Shield plans, I am doubtful whether the authorities ultimately responsible for them would permit the changes that would be necessary to effect comprehensiveness of service and provide control of quality and costs of service. Commercial health insurance plans that pay cash indemnities, should have a substantial future in service to the top 10 percent, and even, perhaps, to the top 20 percent, of the population.

The following list of 15 immediate proposals includes some recommendations for national or State legislation, and a number for non-governmental action. Voluntary groups, lay and professional, are among the most weighty working forces in the medical-care field. I have suggested lines of policy which I hope the Commission's report will bring effectively to the attention of some strategic groups of citizens.

1. Adequate and prompt financial support for the education of professional personnel, through:

(a) Federal aid to the professional schools, along the lines of legislation already proposed.

I believe the need for national aid has been amply demonstrated, even after all probabilities of State and private financing have been exploited.

(b) Encouragement of larger tax appropriations by the states and municipalities which maintain the schools.

(c) Larger private donations of funds from professional and lay sources.

2. Adequate and prompt financial support from the Federal government to enable all States and localities to provide the basic facilities of preventive medicine—local public health units—for all of their people, without any Federal restrictions upon the freedom of State and local governments in the scope and administration of their health departments.

3. Assistance by national and State legislation, and by voluntary action, for health insurance plans offering comprehensive services, especially when accompanied by group medical practice. Specific proposals include:

(a) National legislation providing funds to aid in the capital and current financing of such plans under voluntary or local governmental bodies, for limited periods, with provisions to ensure financial responsibility, compliance with basic standards, and freedom from autonomous administration.

(b) State legislation, now needed in a number of States, to remove legal barriers to such plans.

(c) Action by unions, cooperatives, farm, business, and other organizations to obtain the required national and State legislation and to promote the establishment of such plans.

4. Increased tax funds for the medical care of persons who are accepted as public responsibilities—the mentally sick, the indigent, and some chronically ill persons.

5. Larger appropriations by State and local governments which pay voluntary hospitals for the care of persons who are accepted as public responsibilities, so that these payments shall not be token amounts, lump-sum grants, or subsidies, but shall be made on the basis of full cost for the services rendered.



6. Extension of the Old Age and Survivors Insurance system to include within its scope the financing of short-term hospital care for its beneficiaries. This would remove one of the sources of the deficits of the voluntary hospitals, with no increase required in the OASI payroll tax or in general tax appropriations.

7. Continuation of the Hill-Burton hospital construction program (due to terminate in 1955) and the extension of that program to cover (a) a share of the construction cost of health centers or clinics providing diagnostic and treatment services for ambulatory patients, and (b) Federal aid to demonstrations (limited to about two in each State) of plans of regional coordination of hospitals, or of home and ambulatory care for chronic patients, in coordination with their needed institutional care.

8. Larger expenditures for rehabilitation, partly from public funds, as in the present Federal-State program, and partly from industry as an extension of industrial medical services.

9. National legislation to provide for medical care of inter-State migratory workers and their families.

10. Continued and larger support from private and public funds for research, with relatively more money for basic research.

11. Point out the need for an active health-service policy on the part of organized labor, including:

(a) Continued collective bargaining for health benefits;

(b) Demand for comprehensive medical benefits and for service benefits as contrasted with cash indemnities;

(c) Continued work for national health insurance legislation;

(d) Study in each locality of the practicability of establishing comprehensive health insurance plans and vigorous efforts towards the organization of such plans whenever feasible.

(e) Insist on adequate representation of consumer groups, including labor, on the governing bodies of non-profit health insurance plans.

12. Encourage employers to cooperate financially and organizationally with unions and others in improving non-profit insurance plans and in bettering medical care under Workmen's Compensation.

13. Bring effectively before rural people the present deficiencies of their medical service situation and its financing, so that they will be encouraged (a) to demand parity of health financing with other sections, (b) to select forward-looking physicians and social scientists to help them appraise their needs, and (c) to define practical local, State and nation-wide steps towards meeting such needs.

14. Point out to forward-looking physicians that, faced by the conservative policies of their organized profession, they must enter into active participation with organized lay groups in order to accomplish the improvements which these medical men would like in the quality, organization, and financing of professional services.

15. Define for the voluntary non-profit plans the conditions of organization and of service with which they should comply if they are to be in a position to meet the demands of the future.

I do not offer a proposal for national or state aid to assist these voluntary plans in enlarging their enrollments among low-income and other groups. You know of the several legislative proposals of this sort which have been put before Congress in recent years. I do not think that even non-profit plans should be aided by public funds, unless the interests of their subscribers and of the general public are fully represented on their governing bodies. Public aid as now given to Blue Cross or Blue Shield plans would, before long, lead to tensions that would compel either the termination of the aid or full public control of such aid.

Looking at all these proposals together, let me say something on the question of cost, which must always be considered. Some of the proposals do not call for any direct expenditure, although the kind of action which they require from various groups of people rarely occurs unless funds are readily available. Some of the "immediate proposals" require increased public or private funds, but the cost would not be high enough to deter any but professional economizers.

The major health insurance programs involve, at the beginning, mainly a re-routing of fee-for-service payments but require very little additional money. Subsequently, increases will occur because of larger utilization of services and later because more personnel and facilities will be developed in response to demand, even if there were no increase in population.

The expense will depend largely upon how we proceed. The work of this Commission represents the idea that medical services in the future and the vast sums expended for it, shall be better planned than they have been in the past. Maybe they can be. Certainly they will cost less if they are.

Policies which place the stimulus of insurance behind only the most expensive forms of service will be costly, whereas policies which make prevention the brother of care instead of the step-child of practice, or which make it possible to replace some bed care by ambulatory care, will bring substantial economies. Similar advantages, in a different form, will follow from policies which increase the medical rehabilitation of workers. Policies encouraging group practice will bring some economies in the production of medical services. On the one hand, comprehensive policies for financing medical care costs will stimulate the co-ordination of services and the economies arising therefrom. On the other hand, we will not save money if we are compelled to pursue piecemeal policies which promote imperiums of service for special groups of the population, or finance competing platoons under the battle flags of particular diseases, or permit commerce to dominate where the ideals of professional and social service should reign.

In conclusion, let me try to place in perspective this hurried critique of inefficiencies and suggestions towards remedy. Forty years ago the reconstitution of medical education was set vigorously under way by the Flexner report and the American Medical Association; the systematic improvement of hospital services was beginning through the American College of Surgeons and the American Hospital Association; and the medical-economic issue of the time was how far exten-

sions of organized medical charity, through out-patient departments of hospitals and the clinics of public health agencies, would interfere with private medical practice.

These matters are still with us, but they seem mild and intramural compared with the far-reaching public issues which overshadow them today. Since then, all the major currents in medical science and technology, in medical and hospital practice, and in economic, social, and political conditions, have mingled their forces to determine the stream of evolution in medical care. The suggestions I have ventured rest upon analysis of these forces.

From that analysis we perceive that methods of financing services are interdependent with the quantity, composition, and quality of the services themselves. This means that we cannot reach conclusions about either economics or services without considering them together. Medical men and laymen must therefore do joint and not separate thinking.

We observe moreover that the economic forces, such as popular demand for more medical care and better ways of paying for it, are massive forces. These are just now beginning to throw their weight upon specific points of application. As they do this, they will outweigh forces arising from more specialized interests, and they may be disruptive unless the economic and the professional forces are pressing in the same general direction. Only joint thinking of medical men and laymen will avoid that danger.

We see, too, the waves and eddies which have been raised by the sharp winds of controversy. Waves and eddies can swamp a boat. But as we cast our vision over the long flow, we perceive that these disturbances really penetrate little below the surface. The stream's main currents run deep. The essential task is to discern the force and directions of the main currents. Professional and economic policies which are to be significant and durable must be in line with these main currents. Expedients which help to deal with waves and eddies must also take them into account.



# INADEQUACIES IN FINANCING MEDICAL CARE AND SUGGESTIONS FOR ACTION

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The differing circumstances in the 48 States make difficult any general judgment of inadequacies of our present national system of financing medical care, or of any recommendations regarding immediate needs for expansion. Only rough judgments can be made without special research into these differences. The variations in the States—of their citizens' income, the availability of medical care, the character of population distribution as to employment, age, and many other factors—all suggest the need for such a statement.

This presentation assumes that all who participate in the discussion of this aspect of the Commission's study are equally concerned with the welfare of the people. The great debate in the matter of distributing health services arises only out of conflicting judgments as to method. The same goals—high quality medical care for all, a convenient way of paying for such service, and a reasonable charge for the service—motivate all who are concerned with the matter.

I would like to make preliminary comment as to the definition of the terms used, "inefficiencies of our present system of financing medical care" and "immediate needs for expansion." It would appear that both of these terms refer to services now available or which might be made available without changing the essential nature of our voluntary system of providing medical care. I am talking about the system as it exists, about money and facilities now available, or which might be made available without altering the voluntary nature of our system. My purpose is to analyze what exists and to make recommendations concerning it.

I could make a simple statement of the two glaring inefficiencies of our present system of

financing medical care. But it is the analysis of the interplay of these two factors, how each affects the other, and how both obstruct progress in achieving our goal, that holds promise of stimulating thought on the problem. It is this aspect of the matter which I would like to emphasize. These two inefficiencies are:

- (1) The lack of adequate public support for the care of those who are unable to pay for health service.

- (2) The limitation in both the availability and the character of insurance to provide protection against the cost of care. "Availability" as here used takes into account the fact that coverage, although it may be offered may not have been purchased, or though purchased, may be of such character as to make it worthless. It is agreed that the insurance industry and the nonprofit health insurance plans bear at least some of the responsibility for both these failings where they exist.

The city, the county, the State, and the Federal government all have a hand in meeting the medical needs of the poor. In addition, charity resources do their best to see to it that no one is denied needed care. These are either in the form of endowments or other funds, or service from doctors and other health workers. Yet, the unending testimony is the same. In spite of general prosperity, the demand for such service is a growing burden to our medical institutions and their personnel.

Why this is so in a period of prosperity is not because more people need assistance in meeting the expense of medical care, but because the cost of medical care has grown beyond the ability of traditional financing methods to meet it. Much has been done through insurance to solve the problem of providing medical care in the hospital to

the ever-growing millions of our population. It might even be said that if such insurance coverage had not grown as it has during the past 10 years, we would not now be considering non-governmental methods of financing. Our system would have broken down long ago.

The peril to further development of voluntary insurance in meeting more of the problems for the individuals protected, is the drag created by inadequate support of the public's portion of the medical bill, the amount needed to pay for the cost of medical care for the poor.

How higher costs of providing medical care have altered our ability to meet the expense of such care for the poor is shown by Philadelphia's experience, which is typical of many communities. Philadelphia also has had a typical health insurance history. It was late in establishing a Blue Cross Plan, which it did not get under way until 1939. The Blue Shield Plan did not really start enrolling subscribers in large numbers until three years ago. Yet to date, 1,850,000 persons are enrolled in Philadelphia Blue Cross, and about 50 percent of all hospital-day care provided by Philadelphia's non-government hospitals, is to Blue Cross subscribers.

The important change which has occurred in Philadelphia is in the hospitals' provision of "part-pay" and "free" days. In 1938 in 37 State-aided hospitals these two categories amounted to 982,754 days and accounted for 62 percent of all days provided by the hospitals. (In all calculations newborn days have been excluded.) 447,642 of these days, or 28 percent of all days, were provided on a "part-pay" basis, the patients paying \$1.03 a day to the hospitals for the care rendered to them. 535,112 of these days, or 34 percent of all days, were provided on a "free" basis, the patients paying nothing to the hospitals for such care.

By 1951 only 560,058 days, or 25 percent of the days provided by the same hospitals in Philadelphia, were provided on a "part-pay" and "free" basis. The "part-pay" days had shrunk to 286,614 days, or from 28 percent to 12.7 percent of all days, and the "free" days to 275,444 days, or from 34 percent to 12.3 percent of all days. Also, "part-pay" days in 1951 netted hospitals in Philadelphia an average of \$2.37 a day in contrast to \$1.03 a day in 1938.

This lower number of "part-pay" and "free" days did not result solely because of Blue Cross enrollment. The improved economic situation for most people, and other types of insurance, have

helped to make this difference. Yet, a 60 percent enrollment of the population of Metropolitan Philadelphia in Blue Cross could not help but have been the dominant factor in this change.

The transition from many "part-pay" and "free" days without Blue Cross to less "part-pay" and "free" days with Blue Cross, is what might have been expected. Yet the effect upon hospitals was not to lessen their problem, even though 422,696 less "part-pay" and "free" days were provided in 1951 than in 1938.

To get at the root of the problem, cost of providing medical care must also be considered. The average cost of the State-aided hospitals in Philadelphia in 1938 was \$4.62 per day. Since these 37 State-aided hospitals provided 982,754 days in the "part-pay" and "free" categories in 1938, the cost of this service to them was \$4,540,323.48. It will be remembered that the hospitals received \$1.03 a day from "part-pay" patients, or \$461,071.26. This left a cost to be obtained from other sources of \$4,079,252.22. In 1938 these hospitals also received as State-aid for "free" days, \$2.21 a day, or \$1,182,597.52. Adding the two items of income and subtracting the total cost left a net amount of \$2,896,654.70 to be obtained from other sources.

In 1951 the average cost for ward service in the same hospitals was \$13.61 per day. In this year the hospitals provided 284,614 "part-pay" days and 275,444 "free" days, a total of 560,058 days; 422,696 less such days than were provided by them in 1938. Yet the cost of these 560,058 days to the hospitals at \$13.61 per day was \$7,622,389.38; \$3,082,065.90 more than the cost of the same categories of days in 1938. In 1951 these hospitals received \$2.37 per day from the "part-pay" patients or \$674,535.18. In addition, the hospitals received approximately \$4.68 per day from the State for the 275,444 "free" days, or \$1,289,077.92, making a total received from the State and the patients for these 560,058 days of \$1,963,613.10. This leaves a net amount of \$5,658,776.28 to be obtained from other sources; \$2,762,121.58 more than had to be obtained by them in 1938 from other sources. I emphasize again that this is in spite of the fact that these hospitals provided 422,696 fewer days to the poor in 1951 than they did in 1938.

Thus far, we have considered only the State-aided hospitals in Philadelphia. Only 37 of the 73 voluntary hospitals in the Philadelphia area receive aid from the Commonwealth for the care



of the poor. These hospitals account for 60 percent of the voluntary hospital beds in this area. Yet even though average hospital cost for ward service in Philadelphia in 1951 was \$13.61 per day, and payment by Blue Cross in the same period exceeded \$15 a day, the Commonwealth still pays State-aided hospitals at a maximum rate of \$6.50 a day.

The appropriations to the hospitals are made on a bi-annual basis. Since the appropriation is always short, the hospitals of Philadelphia at present actually do not receive as much as \$5 a day from the Commonwealth for the care of indigents, care which costs the hospitals \$13.61 a day to provide. And it should be noted that Pennsylvania's hospitals are fortunate. In many States no State provision is made to assist hospitals.

Of the 47 hospitals in Philadelphia, 23 (some are the same as those receiving State-aid) also receive some support from the United Fund. The total of this support amounts to about \$1,500,000 a year, but it is not enough to run the out-patient departments in three or four of these hospitals. Except for endowed funds for hospital purposes, the only other money available to the hospitals to meet the cost of providing care to the poor must come from patients, Blue Cross, and other insurance.

The facts about loss due to provision of care to the indigent in Philadelphia can be carefully traced in the experience of State-aided hospitals, because these hospitals regularly report to the Commonwealth's Department of Welfare. For Philadelphia's entire hospital community, the loss is substantially more. Since this reports the facts on only half of the 73 hospitals in Philadelphia, and the same problem exists everywhere, it is small wonder that the advocates of voluntary health insurance are concerned about the trend that is so plainly indicated. If in response to this situation the Plans have to become selective of risk and drop subscribers when they leave their place of employment (as ordinary group insurance companies do), not enough of the population will be enrolled. If they are not selective of risks, this fact and the hidden cost of caring for the indigent will price their coverage out of the market.

Let me be even more emphatic on the points I have been summarizing and say that it is safe to assume that, if hospitals were adequately paid for the care of those patients who can pay little, if anything, for hospital care, then the present

Blue Cross rates per subscriber could be substantially reduced. Or, what would be more likely, the present rates per subscriber would be sufficient to provide much more coverage than is now provided.

This problem hampers the aspirations and ambitions of Blue Cross. All Blue Cross Plans look forward to the time when they can provide preventive medical service and other services that are not now included in their insurance coverage. Such aspects have not been overlooked—they have only been delayed.

Insurance must be competitive, not only within the industry itself, but in the general economy. Yet, the individual health insurance buyer of modest income is by no means without defense in the matter of higher rates. If medical care costs for the care provided to indigents must be continuously added to his premium cost, he can fail to renew his insurance and thereby add the cost of his medical care to the general public's burden. Just how high insurance premiums can go has never been tested. When premium costs have become too high, however, and many individuals have refused to pay the amount required, the knowledge of such a limit to voluntary insurance plans would be valueless. If the people give up in what they regard as an unequal struggle, they will fall back upon Government to solve the problem. The problem before us therefore is to find ways to avoid such testing of limits and to do something about it.

Blue Cross has been criticized for its relatively low coverage of farm families. It has also been criticized for not making coverage available to those not eligible for group coverage—the aged, those presently ill, or those not insurable because of the existence of other circumstances. On these counts, much has been done. More can be done as progress is made in the solution of the first problem—that of obtaining adequate payment for care provided to indigents.

Besides the handicap to possible expansion which is imposed by the unmet problem of indigent care, legitimate voluntary insurance is also at the present time harassed by dozens of questionable competitors. These competitors capitalize on the splendid reputation which the nonprofit plans particularly, and the life insurance companies offering group coverage as well, have jointly established. The responsibility to give the American people the facts with which to evaluate the worth of their policies is the industry's responsibility, and more is being done about this matter every day.

The responsibility to clean up the industry rests also with the industry and with State regulatory bodies.

Blue Cross regularly pays from 85 to 90 cents out of every dollar collected for hospital care of subscribers. One of the companies trading on the popularity and reputation of Blue Cross in Pennsylvania, last year paid out 6 cents on the dollar for hospital care. Most rarely pay as much as 35 cents on the dollar collected. It may therefore be seen that the coverage provided by them is not worth much to the individual or in the solution of the general problem.

In the discussion thus far I have emphasized hospitalized illness because this is the aspect of medical care expense which can be most easily predicted and most insured against, and also because it represents the greatest problem to the individual. Progress in our country in the development of this coverage has been phenomenal. Practical considerations suggest that, except for local demonstrations in extending coverage to include home and office calls and preventive service, this aspect of our national insurance program should continue to be emphasized.

Extension of those covered, however, cannot proceed without solving the problem of public support for the indigent. Some kind of bridge linking Government and non-Government agencies will have to be established. There can be no doubt that solution of the problem of meeting the public's bill for medical care of the poor will require the participation of government at all levels.

Various suggestions have been made along these lines. Unfortunately, most have by their nature lent themselves to the criticism that they would foster and promote "poor man's medicine." The concept of providing a lower quality of medical care to the poor properly offends the American conscience. It has therefore been relatively easy for the advocates of compulsory Federal insurance to limit support of the suggestions so far made, by pointing this out.

In an effort to avoid a "poor man's" program, and at the same time to constructively bring local, State, and Federal resources to bear upon the problem, sometime ago Senator Lister Hill and others fashioned a proposal which has considerable merit. Senator Hill suggested: (1) That local Hospital and Medical Care Authorities be created somewhat in the same manner as Port Authorities, and that each such Authority cover the territory assigned to it under the State surveys

conducted under the Hospital Construction Act. His suggestion in effect proposed that, if area planning is successful with respect to planning and building health service facilities, there is no reason for assuming that it would not be equally effective in the matter of health service financing; (2) That grants-in-aid for the medically indigent be made by the Federal Government to the States for transfer to such Authorities. The Authorities would then be responsible for the administration of local, State and Federal funds for the care of the indigent in their own areas. To avoid the possibility that "poor man's" medicine would result from such a program, Senator Hill suggested; (3) That in periods of unemployment the unemployed would have continued coverage; (4) That the indigent select the coverage desired from among non-profit insurers meeting Federal standards and authorized to do business in each such Authority. The indignity of a means test imposed at time of requiring service would be avoided since the hospital or doctor would be unaware of any distinction between those who paid their way and those whose care was paid for by the Authority. If Blue Cross, for instance, were selected by such a person, a Blue Cross card no different from its regular card issued to all subscribers would be issued to each indigent family, the family having met standards established by the local Authority and approved by the Federal Government as a condition of its participation. Blue Cross or Blue Shield would then pay the hospital or doctor for service rendered to the indigent in accordance with its regular contract, billing the Authority for the amount so paid plus agreed-upon administrative expenses.

The need for local management of health resources is admitted by all. This would result under Senator Hill's suggestion. The essential requirement of an effective health program—that personal responsibility for the care of the sick be strengthened and extended—would also be emphasized in this kind of thoughtful planning and administration. In addition, it would avoid the possibility of setting up "poor man's medicine". Yet the suggestion has been blanketed by a wave of silence. It would almost appear that the debate upon methods is limited to the alternative of all-out Federal compulsory insurance or no insurance at all. This does not make good sense.

I do not want to belabor attitudes, but it should be added that while those sponsoring Federal compulsory insurance are quick to criticize



Blue Cross for not having more than 2½ million farm subscribers, or a special program for the aged or the presently ill, they have been of no assistance in the development of a program for the protection of the employees of the Federal Government itself. For 15 years I have personally tried to get sponsorship of legislation which would authorize payroll deductions for Federal employees. This proposal has been before Congress several times, either as separate measures or embodied in other legislation. It cannot be that the Federal Government, the largest employer in the United States, is less interested in its employees than the hundreds of thousands of employers, many of them State and local government units, who are now making payroll deductions regularly for voluntary insurance. Criticism of Blue Cross and Blue Shield by those who have sat on their hands in the matter of making this service available to 3 million Federal employees and their families on a regular payroll deduction basis, is therefore hard to take.

In summary, may I suggest that the practical problem at this time is the payment of medical care for the indigent in such a way as to strengthen and extend local effort and personal responsibility, both of those who attend the sick and those who pay health insurance premiums. The overburdened voluntary agencies cannot meet this problem, and the continued addition of this cost to paying-patients' bills or insurance premiums has a diminishing possibility of success. The expansion of insurance both in extent of coverage and number of persons served, waits upon the solution of this problem.

It will be seen that these two matters, public support of care for the indigent and extension of insurance for the self-supporting, are really one and the same. The more hospitals and other health agencies must rely upon insurance to meet what is the public's responsibility, the higher the premium rates insurance must charge. The higher the rates, the less the number who can afford to purchase coverage. It is a cycle which comes to no conclusion in the solution of our problem.

Criticisms of extent of coverage, or lack of preventive care; criticisms of rate-making policies or the lack of incentive to group medical practice resulting from existing voluntary plans; or criticism of the limitation of those eligible for coverage; all have merit in their place but they only obscure the main issue at this time.

The main issue is not how to get the self-supporting to protect themselves from the high cost of medical care. Of course this could be done rapidly by passing a law. This has been done at a faster rate than even the friendliest critic might have imagined 10 years ago. Passing a law compelling payment of a tax, with the Federal government running the show, has many more problems attached to it than the orderly development of our present system. It is yet to be proved that such a solution would not leave us in a worse situation than we now face. The devil of this piece is Government itself, with Federal government spokesmen claiming they can solve the problem for all of the people for all time, but disdaining to consider responsibilities that are plainly theirs.

I am convinced that we have developed an American pattern of insurance which is unique in world history and which will result in ever higher standards of service. The effective regulation of hospital and medical care plans in the maintenance of these standards has now been woven into the laws of most of our States. This is a guarantee of performance for the future.

The non-profit Blue Cross Plans in this country have moved from partial coverage for dependents to full coverage for all; from coverage in a few local hospitals to a reciprocity plan which makes the hospitals of each Plan available on a service basis to the subscribers of all plans; from limited coverage stopping at 65 years of age (of the insuree) to unlimited coverage extended to the subscriber whether he be at work or on vacation, or even in retirement; from a wide variety of coverage to the ability to offer uniform coverage to the employees and family members of great industries, such as steel, automobile and textile; from no subscribers 19 years ago to 40 million subscribers at present; and from no payment to hospitals to the payment of over \$400 million in 1951.

The strength, vitality, and inventiveness of these Plans have now been proven. The evidence is clear that they will fulfill their part of the responsibility in meeting unmet needs. Part of this responsibility, however, rests upon local, State and Federal government. The local non-profit health plans stand ready to cooperate with Government in fulfilling their destiny. We ask that the full weight of the recommendations made by The President's Commission on the Health Needs of the Nation be placed squarely behind the further use and development of local non-profit health plans.

# LABOR LOOKS AT THE PROBLEM OF FINANCING HEALTH SERVICES

**NELSON CRUIKSHANK**

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I am going to discuss the point of view of organized labor on the problem of financing health services. For some time organized labor has been more closely united in a common stand on this basic issue than on almost any other national issue. Moreover, I believe what I have to say also represents the interests of wage earners generally, whether or not they are members of labor unions, as well as of all middle and low-income groups in the population.

These are the people who actually pay the medical and hospital bills of the Nation. They are people who want to be healthy and need to stay healthy, if they are to maintain their economic standards of living. They are people who feel they have the right to participate fully, and on an equal basis with those who have higher incomes, in the benefits of scientific medical progress of this Nation. They are people who do not want charity, and therefore have the greatest stake in getting the financing aspects of health care organized on as rational and as realistic a basis as possible.

These people are the principal consumers of medical care. Our interest is to obtain the kind of high quality, comprehensive health care which we know is within our means as a Nation, and to use the most efficient, economical method to obtain it. It is for this reason that organized labor is united in demanding a system of national health insurance for the benefit of everyone.

Briefly, labor has three major goals in this field: (1) maintenance of good health; (2) the elimination of the financial barrier to obtaining high quality medical care; and (3) an efficient and economical system for prepaying the cost of this medical care.

Why does labor look to a national health insurance system as an essential element in solving

the problem of financing health care? The explanation is three-fold and lies in the concrete experience which workers and their union organizations have had in this field.

First, we know from our own experience with illness and accidents and the distress and even disasters they cause in our families, that good health is essential to workers' moral and economic welfare.

Second, we know the high costs of keeping well and restoring ourselves to health when we have been ill. These costs, not only to workers' families but to industry and to society in general, have frequently been described in all their magnitude. Workers know these things concretely and intimately.

Inadequate health care results in even higher costs in terms of unnecessary waste of human resources. Quite obviously, this waste can significantly affect our real standard of living, our economic strength as a Nation, and our position of leadership in the world.

Third, labor has had broad and varied experience with the so-called "voluntary" insurance plans. We are very much aware of both the distinct contributions of these plans and their definite limitations.

For several years, the labor movement, through its component organizations, has worked for its objective of national health insurance through the accepted democratic institutions. In view of the demonstrated need for a solution to the problem of financing adequate health care, one might suppose that we would have received sympathetic interest and constructive advice from the official organizations of the medical profession. Instead, labor's efforts have been met by a campaign of blocking and vilification on the part of the American Medical Association.

This blocking has taken the form of simple name-calling and slogan-mongering, and has hidden behind cowardly innuendo. In addition,



the attacks have been shifted from the ground of the immediate issues to an unholy alliance with other reactionary forces which are attempting to scuttle established institutions, as well as block the evolution of new social and economic programs for the people's welfare. I need only mention the fields of disability insurance (against wage loss), workmen's compensation and old age security—to list some major areas in which the AMA has aided and abetted the forces of reaction. Currently we even see this Association opening a campaign of misrepresentation against one of the bulwarks of labor welfare in the world, the International Labor Organization.

Most of the diatribes against labor's program for a national system of health insurance could be met, if rational discussion sufficed, by simple resort to the dictionary and an agreement as to the specific meaning of words. For we can show that what we propose bears little or no resemblance to what we are charged with supporting.

There is one common, frequently repeated argument which can be met on its own ground. It is to the effect that, granted the need for a nation-wide system of prepayment for health care, this need is currently being met through the gradual expansion in coverage of the so-called voluntary plans. Increasingly, coverage under these plans is being extended to industrial workers through the institution of collective bargaining. Unions and their members know a great deal about these plans because, collectively, they have tried them all. Let us look at our experience.

There are two questions I wish to deal with:

- (1) What are the facts about these voluntary plans—are they doing the necessary job? and
- (2) Is incorporation of medical payment plans into collective bargaining agreements the most satisfactory method of financing our Nation's health needs?

As you probably know, since 1942 a variety of factors have pushed unions into bargaining with their employers for so-called "health and welfare" benefits or funds. One major factor behind union policy in support of this development has been the unreasoning opposition to labor's legislative health insurance program. Because they have been frustrated, unions have had to fall back upon their collective bargaining strength, as a temporary expedient to make even minimum gains in this area.

Latest information indicates that most national and international unions have at least some mem-

bers covered by union-management negotiated health funds. The total number of workers covered by some sort of negotiated program, financed in whole or in part by employer contributions, is now probably at about 9 or 10 million. To that is added several million workers, both organized and non-organized, covered to some degree by plans which have not been the result of collective bargaining (and which, therefore, generally provide fewer and smaller benefits than the negotiated programs).

Although we do not have accurate statistics, it is true that an impressive number of wage earners have some kind of health insurance coverage provided on a group prepayment basis. But this number is still only a part of the industrial working force. And "coverage" is an inclusive term that makes none of the distinctions which are necessary to determine the measure of protection actually provided. The deficiencies of the insurance plans which cover industrial workers are manifold:

- (1) The preponderance of the plans purchased by negotiated welfare funds provide only cash indemnity benefits for physicians' services. For hospital services, the picture is somewhat better—cash indemnity type benefits are not as predominant.

- (2) Even these limited benefits are purchased at a relatively high per capita cost—compared to the cost at which many consumer-sponsored plans are able to provide highly comprehensive services.

- (3) There are literally thousands of different arrangements providing wide variations in scope of benefits which are not justified by any criterion, despite the prevalence of the appeal to "fit the insurance benefits to the needs" of a given group or industry. The needs are always comprehensive medical care. This piecemeal approach means inequality in benefits for workers even in the same community.

- (4) Despite the large sums of money often made available in union-management welfare funds, studies have shown that only a relatively small percent of this money is used for providing actual health care. This varies with the type of program, of course, but a recent study made by the San Francisco Labor Council indicated that only about 50 percent of the "welfare dollar" goes to its intended purpose.

- (5) The typical negotiated health plan is hedged by severe limitations upon benefits. Most of the medical care provided is limited to

hospital-confined illness. Rarely do these insurance programs include medical expenses not connected with a disabling illness. This means a large proportion of the family's medical bills (estimated as high as 80 percent) does not come under even the intended scope of the insurance plan. This discourages early treatment of any illness, encourages a greater incidence of serious illness, and thus contributes to higher overall costs for medical care.

(6) These negotiated programs entirely ignore the important preventive aspect of medical care which is, I believe, the major need of industrial worker groups.

(7) Probably because the negotiated welfare benefits were originally conceived as employee benefits, coverage for family members is found to be spasmodic and generally less complete in scope of benefits than is coverage for employees.

(8) Union experience has shown that, even for those items of medical cost which are insured, insurance on the average rarely covers more than 40 to 60 percent of the actual bill.

(9) Dental and eye care is rarely, if ever, included.

(10) Even where insurance companies, at the end of a year, return to its insurees (in the form of "dividends") a certain percentage of the premium which has not been used for benefits, this still results in a large proportion of the money not being utilized for health benefits over a given period.

In addition, unions have discovered that a great many of the deficiencies of the health and welfare plans set up through their collective bargaining agreements, are due largely to the limitations of the indemnity approach which characterizes an overwhelmingly large proportion of the plans. From our experience we know that these limitations are inherent in the indemnity approach, and that we can hope for little or no improvement unless a change is made in the service type of program.

Specifically, unions bring these charges against the indemnity approach:

(1) It does not and cannot furnish the desired objective—actual medical services. The worker still must fend for himself in finding such services and contracting for them.

(2) It does not provide a solution to the average worker's problem of how to purchase necessary medical care with his available funds.

He is still just as helpless as he formerly was in using his medical dollar efficiently.

(3) It does not cover all the costs, or even any predictable portion of the costs, of the services supposedly insured for.

(4) Most serious of all, it does not permit unions to improve effectively their position when faced with the high cost of medical care. We hear constant complaints from workers that, whenever unions through negotiations with their employers succeed in increasing the fund available for medical benefits (and these funds are used to purchase a higher scale of benefits), costs of services frequently are raised proportionately, so that no real improvement is visible.

Thus, indemnity plans contribute to the spiral of increasing medical costs, and unions are helpless to make any improvements in the situation. For example, a union research director told me that the day after his union had finally won a long-fought-for concession from the employers to raise hospital indemnity benefits twenty percent, the hospital told him that they were correspondingly raising their rates by that amount. And as for physicians' services, several union officers have told me of their experiences in discovering, to their amazement, that a shift from a \$150 to a \$300 schedule of surgical benefits still left their members paying the same extra charges.

I know that it is commonly contended by AMA spokesmen that it is unethical practice for doctors to raise fees for insured patients, and there are many pious condemnations of the practice. Such an approach will never solve the problem. It is difficult, if not impossible, to prove a deliberate hiking of fees. Moreover, I don't condemn doctors for raising their fees, because I think it is a natural reaction and is consistent with their traditional sliding-fee scale that is based upon a patient's ability to pay. Under such circumstances, it seems to me that it is only natural for a doctor to look upon an indemnity insurance policy as an additional financial resource of the patient. As long as benefits are paid solely in cash with no guarantee of the medical services it will actually purchase, this constant upward pressure on fees can be expected. Thus, we have the astounding spectacle of a highly advertised system of insurance which actually provides little or no insurance.

These remarks refer to commercial insurance as well as to the medical society plans controlled exclusively by doctors. As long as there is no effective consumer representation on these pro-



grams, there can be no effective control over the problems of cost. This applies particularly to the medical society plans which play up their "non-profit" character and yet are exclusively controlled by the very doctors who give the services at fees which they establish. However honest, no one can be entrusted with spending another person's money economically when it is primarily a matter of paying himself.

My comments apply strictly to the prevailing insurance plans on which the preponderance of union welfare funds have been spent. They do not apply at all to several outstanding, comprehensive service programs, some of which unions have established, and which in other cases unions have joined. Among the union-established plans, I am referring to one of the country's leading comprehensive group-practice service plans, the Labor Health Institute of St. Louis; to the well-known health centers in several cities of the International Ladies' Garment Workers' Union and the Amalgamated Clothing Workers of America; and to the service plans established by certain locals of the Butcher Workmen, Hotel and Restaurant Employees; and a few other unions. Among the existing non-profit service plans supported by labor, I am referring to the Health Insurance Plan of Greater New York, the Group Health Association of Puget Sound, the Arrowhead Health Association in Minnesota, the Permanente Plans on the West Coast, and many others. These progressive programs are all going in the direction which we in the labor movement wish to go, providing a sound base for local, consumer-controlled, comprehensive, medical services which will be able to continue even more effectively under the stimulus of National Health Insurance.

My remarks should not be construed as a criticism of the collective bargaining approach in matters of welfare for workers. The great contribution of labor-management collective bargaining to social and economic progress, and particularly to the improvement of the status of the industrial worker, is an important factor in our American way of life. Collective bargaining fits many problems admirably. In the face of the AMA's stubborn opposition to labor's efforts to make progress in the field of social security legislation, a remarkable job has been done through collective bargaining, and labor has been given an opportunity to gain a great deal of extremely valuable experience for understanding the problems involved in providing social security benefits.

This is particularly true in the field of health. But I and many others in the labor movement are convinced that collective bargaining cannot be as successful in providing all the needed health benefits as it has in providing benefits in many other areas of social welfare. When the normal channels of the legislative process are blocked, the genius of collective bargaining is to get something done quickly. The fact that many separate groups, of varying size and composition, take part in collective bargaining, means that the many different approaches to health insurance have been tested experimentally. Collective bargaining, for example, has well demonstrated the extraordinary administrative and cost advantages of group coverage over individual purchase of insurance protection.

These contributions cannot blind us, however, to the shortcomings of the collective bargaining agreement in this field. As the recent San Francisco Labor Council study so clearly demonstrated, vast sums of money earmarked for health care are wasted. The health plans set up under collective bargaining agreements require a multiplicity of administrative operations and consequent high cost. The variety of plans results in an unequal distribution of coverage, of benefits, and of health security, that bears no relationship to the varying needs of the persons covered by the plans. The collective bargaining plan can take advantage only of the existing voluntary health insurance plans available in a given community—programs which normally provide limited benefits and pay only a small percentage of the worker's medical bill. Finally, the collective bargaining approach is usually unable to establish the necessary consumer control over the economic and financial aspects of health care administration, which is an essential element in any system that promises to bring the full advantages of modern medicine to the American people.

Labor has tested the voluntary plans and, with the few exceptions I noted, has found them seriously wanting. We are confirmed in our support for a system of National Health Insurance. We feel we have a right to demand that a small-interest group should not continue to be permitted to block our efforts in working toward our legitimate goals.

In the field of disability insurance—compensation for loss of income due to illness—we feel we have a right to demand that the AMA and other groups withdraw their opposition to the establishment of State programs having a sound actuarial

basis and adhering to federally established standards of operation.

In the field of medical and hospital care we feel that a nationwide system of insurance is the only economical and fair solution to the problem of financing medical care for all the American people. It alone will provide the equality, universality and efficiency we have a right to expect. It alone can make possible the establishment of adequate standards of medical care, emphasizing the principles of prevention, comprehensiveness, complete family coverage, and insurance rather than charity. I want to make it very clear that labor does not want to see repeated in this broad field of disability and medical care, the same sad experience it has had with commercial insurance company domination of medical care under workmen's compensation.

Our support of a system of National Health Insurance does not mean that we are not equally concerned with the improvement of existing voluntary plans along the lines of the standards I have suggested. In addition to the few instances of current labor experience with their own comprehensive medical care plans (which are working out most successfully), we are well aware of the long experience of several comprehensive service plans

established by other groups. They have amply shown us that it is indeed possible to offer a program of full comprehensive medical care at costs which are less or no greater than the costs of the limited services that can be obtained in the best of the other currently available plans. I might add that here also medical societies have thrown up roadblocks to progress by coercive action upon doctors, and by pushing through legislation, which has made it difficult for such comprehensive plans to operate and thus provide us with important experimental data on the problems of organizing and financing these comprehensive services.

We feel that support of National Health Insurance does not exclude encouragement of the full and free development of comprehensive voluntary plans. We should advance along both fronts—the legislative and the voluntary—at the same time. We will support all efforts to establish the following principles: comprehensive service benefits; consumer representation; experimentation in methods of group practice of medicine, in the distribution of care, in the prevention of illness, and in health education; and a scheme of financing which will assure the lowest administrative costs with the highest benefits per dollar.



# INDUSTRY LOOKS AT THE PROBLEM OF FINANCING HEALTH SERVICES

**HAROLD S. VANCE**

**Chairman of the Board and President  
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Perhaps no single accomplishment in recent years has revealed more sharply the new era in which industry and business find themselves than the establishment of industrial health insurance and pension plans. I can think of no single trend which indicates more unmistakably the "humanization" of industry than the widespread adoption of insurance programs which provide benefits for employees in time of illness and give financial aid to the employee's family if death removes the chief wage earner.

It seems to me that we have come to realize that our workers, far more than our machines and tools, represent the real investment in any industry or business, and that upon them depends the real success or failure of any industrial or business undertaking. We have, I think, become increasingly aware of the responsibilities which "big business", if you want to call it that, must shoulder, and by "big business" I mean not only management but labor as well.

I have been told that about one-third of our entire population today is entitled to hospitalization as the result of payroll deduction plans. It has been estimated that more than 7,500,000 workers are entitled to additional benefits through their participation in company-sponsored health and welfare programs. This, of course, is only a beginning, but what a beginning!

We at Studebaker realize that happy people are productive people, and that unhappy people are not. We know that sick people are not happy people. We therefore do all we can to keep our workers well, and, in the event accident or sickness do strike, to get them back on the job as quickly as possible.

Studebaker is extremely proud of the coopera-

tive nature of its insurance program, for it is one to which both labor and management contribute. And, although the plan is entirely a voluntary one, 99.4 percent of our working force—all but an infinitesimal fraction of our personnel—participate in the plan. We believe that the extent of our employee participation represents a powerful endorsement of the principles upon which our program is based and of the manner in which it is administered.

Health insurance at Studebaker is by no means a new development, but it has been so vastly improved and the coverage so tremendously broadened that our present program bears little resemblance to earlier plans. Let me tell you something about it.

As I have already pointed out, our insurance program is entirely voluntary. We want it that way. It is financed by both the company and the employee. We believe such cooperative effort is sound. The program is administered not by management nor by the company, but by the employees—who themselves selected the underwriting agency. I believe that in this respect our plan is unique.

Each employee subscribing to our health insurance program contributes 70¢ per week. To this amount the company adds \$1.25 per week for each employee. The program provides not only health insurance but life insurance as well. If the employee wants accident or sickness coverage for his wife, he pays an additional 80¢ a week, making a total of \$1.50. For another 10¢ a week, or a total of \$1.60, the employee receives coverage for his entire family with no restrictions as to the number of dependents.

What does a Studebaker employee receive for his weekly premium? Let me review some of the benefits:

Each policy includes an employee death benefit of \$3,000. When an employee retires, this principal is reduced to \$2,000 during the first year of

the worker's retirement, and to \$1,000 during the second year of retirement. The principal remains at \$1,000 during subsequent years until decease. It should also be explained that any employee eligible for retirement benefits pays nothing toward the cost of the premiums after his retirement. Moreover, the employee is also entitled to hospitalization after his retirement, a provision which has been effective since August of this year.

Our insurance plan provides a \$35 weekly disability payment for a period of 26 weeks. It provides a \$50 monthly payment for a maximum of 60 months in case of total or permanent disability. It provides full payment of ward or semi-private hospital room for both employees and dependents, and up to \$9.50 toward the cost of a private room. It contains a "no limit" clause for miscellaneous medical fees and for hospital first aid. It pays \$10 for ambulance service, up to \$125 for maternity, up to \$400 for surgery; it even pays prescribed amounts for doctor calls—either at the employee's home or at the hospital.

Some of these provisions may sound familiar to you, but their industrial application was in many instances pioneered by Studebaker and adopted by us long before they were put into use elsewhere in industry.

Studebaker was the first to introduce a "full hospitalization" plan for industrial employees. We were the first to specify X-ray and laboratory payments on a "per disability" rather than a "per year" basis. Many policies allow a maximum of \$50 yearly for such services; ours provides such a maximum for each disability.

Studebaker was the first to provide payments for doctor calls which did not involve surgery. Our payments for these calls, moreover, are based upon a "per disability", not on a "per year" basis.

Our industrial insurance was also the first to include \$400 surgery schedule—the first listing of this kind to appear in any industrial health insurance policy. This schedule, I want to point out, was drawn up with the help of the St. Joseph county medical society and the splendid cooperation we receive from our local hospitals and physicians is one of the underlying reasons for the success of our plan. All fees charged by doctors in the South Bend area for services rendered our employees are based upon the fixed table provided in the policy. Chiseling, I am happy to say, has been practically non-existent. You may also be interested to know that every physician in our area has on file, ready for use when needed,

claim forms which he himself, through his medical society, helped to prepare. Our entire health program is endorsed wholeheartedly by the medical profession in our community and our physicians have, in a sense, become partners in the overall program.

Our health insurance program is unique in that it permits employees to choose their own agency to underwrite and administer the plan. Some years ago our workers, acting through their union, selected the Benefit Association of Railway Employees to administer the plan, and this association is currently handling the program. Working with the B. A. R. E. is a board of directors, composed entirely of employees, which oversees the program. These directors are also organized into a number of sub-committees dealing with safety, unemployment, workmen's compensation, blood donations, physicians' services, and other matters. We have also a full-time, on-the-ground administrator, paid by the union. Our claims, I might add, are paid the day after they are received, and if any employee feels in any way dissatisfied with a settlement or with any phase of the program he has the right to present his grievance to an employee committee for redress.

On January 1, 1952, our insurance reserves for hourly-rated employees totaled over \$1 million. This money may be used only for increasing our workers' benefits (without extra cost to the workers) or for further waiving of premiums for employees during layoffs or plant shut-downs.

You may be interested in a few figures illustrating the extent of our payments. In 1951, for example, \$274,885 was paid out for surgery alone. Expenditures for medical calls amounted to \$264,775. Laboratory fees and X-ray payments amounted to \$81,950. And during a four-month period ending Aug. 31 of this year, payments to hospitals for services rendered our hourly-rated workers amounted to \$454,216. These figures will give you some idea as to the scope of our insurance program.

We realize, of course, that along with curative medicine must go preventive medicine. Specifically, we try to prevent accidents and illnesses, and in this respect we have had a gratifying measure of success.

In 1942, just ten years ago, our rate of lost-time accidents per million man hours was 11.26. In 1951 this rate had dropped to 3.71, well below the national average of 6.2. The rate of 3.71 was



based upon an average working force of 19,575 employees—working a total of 34,241,548 man hours.

We have had three deaths as the result of accidents within the past three years, and each one occurred because of a rule violation on the part of the employee. We have had only one eye loss within the past 10 years.

Our accident prevention staff consists of a full-time safety director, a man who, incidentally, has been with the company for 32 years. There are four full-time assistants who help conduct our safety program which reaches every nook and cranny of the plant.

We have scores of safety measures and regulations designed to keep our accident rate at rock bottom. Typical of such measures are these: safety glasses; periodic checking of carbon monoxide areas; careful examination and replacement of respirators worn by employees in grinding or painting operations; safety goggles; automatic guards to protect the arms and hands of machine workers; yellow floor lines to mark off danger areas and white lines to designate main aisles and feeder aisles; safety shoes; barricades and red warning lights where floor openings occur. We insist on special blood tests for paint spray operators and the periodic examining of employees engaged in foundry work or who are exposed to dust from grinding operations. Elevator operators must pass special examinations for vision, heart and reflex actions; cafeteria workers must undergo tuberculosis and blood tests. About once every two years plant-wide X-rays of all workers, hourly-rated and salaried alike, are taken in order to bring about the complete rout of what we once called the "white plague." And now that we are producing jet engines, we have had to establish an entire new set of rules since jet engine production requires certain safety measures quite different from those governing automobile production. Heading our safety program in our aviation division is a full-time director who is personally familiar with every step in the manufacture of jet engines.

We have devised a system of daily checks and reports on all employee injuries, and copies of these reports are forwarded to all plant foremen so they can determine whether personal carelessness is involved in accidents or whether additional protective devices or measures are necessary.

In spite of every human precaution, however, accidents happen. When and if they do, we are

prepared to cope with them. We have a medical staff that is skilled, well-trained, efficient. Heading our staff is a full-time physician who is also our medical director. Assisting him are two part-time physicians and a corps of 18 nurses. We have, located in our plant area, five medical stations—a main hospital and four smaller depots strategically distributed throughout the plant. The medical director and two part-time physicians have their headquarters in the main plant hospital, and a staff of seven nurses assists them. The other 11 nurses are on duty at the four auxiliary hospital centers located in the foundry, the body plant, the parts and accessories building, and the aviation plant.

Our medical facilities are of the finest. We have a surgery and sterilization room; an X-ray room; a laboratory for blood tests and urinalyses; five dressing rooms; one room devoted exclusively to eye examinations and treatment; two physicians' offices; a stock room; a nurses' room. Each of the dressing rooms is a small hospital in itself, adequate for all first-aid and medical work short of surgery. Our main hospital operates on a 24-hour basis; others operate sixteen or eight hours per day depending upon the number of working shifts involved.

Physical equipment is far in excess of the minimum required to handle the types of industrial accidents and injuries anticipated in a plant like ours. There are complete facilities for conducting minor surgery, such as the amputation of fingers or toes. The staff is equipped to give anesthetics and to make and apply casts. There is a physical-therapy department where infra-red lamps yield relief to workers suffering muscular aches and soreness. There is also the most modern resuscitation apparatus which can be rushed quickly to any spot in the plant. And within a short time we shall have our own company-owned and operated ambulance in service, providing even further service to our employees.

The health of our employees is of vital concern to us and we do everything we can to conserve it. Each new worker is given a complete physical examination, including a blood test, and a permanent record for him is filed. An employee's medical record contains not only the results of his own physical examination and of other treatments he may receive from time to time, but a history of any trouble such as tuberculosis, diabetes, rheumatism, or other illnesses by members of his family. Summaries of all treatments given in the plant hospitals become a part of an employee's record. Our

interest in a worker does not stop until a complete healing or cure has been effected. An employee who is absent from work longer than 30 days must take another physical examination before returning to his job.

We have, therefore, attacked our employee health problem from three directions. We do everything we can to prevent accidents or illnesses. That is our first step. But when accidents or illnesses occur, we have the means to cope with them until the seriousness of them can be determined and appropriate action taken. That represents our second step. And, since accidents, illnesses, or deaths always present financial burdens for either the employee or his dependents, we have the insurance which lightens the load. That represents our third step.

This Commission is concerned with health insurance programs and the contributions which

management and labor can make toward their installation and effectiveness. I hope I have made it clear that we at Studebaker regard this problem as a joint one for management and labor. We believe both should contribute their share toward an employee health program. And above all, we believe that, insofar as employee participation is concerned, the program should be a voluntary one. All of us at Studebaker are enthusiastic about our health insurance program, for it contains features found in few other industrial insurance plans. We believe we are demonstrating that a low-cost, voluntary insurance program can work, that it assures good medical care and adequate financial assistance, and that it is in keeping with the American tradition and belief in competition and free enterprise, whether that competition pertains to making automobiles or employee health insurance programs!



# HEALTH SERVICES AND THE EXPANDING AMERICAN ECONOMY

**LEON H. KEYSERLING**

**Chairman, Council of Economic Advisers  
Washington, D. C.**

Before getting into the main theme of my discussion, I should like to set forth two of my basic assumptions about medical economics.

First, I assume that the cost to a nation of illness exists whether we deliberately finance that cost or not. In other words, if a part of our population suffers from ill health needlessly, the Nation bears that cost regardless of whether or not it decides to finance that cost.

Second, I assume that the cost of any national undertaking must be paid for mainly when the service is rendered, and that methods of financing, while they may seem on the books to shift or delay that cost, can't get away from the fact that the real cost of any service is the manpower, the brains, and the materials which furnish the service.

Therefore, the extent to which a nation can afford the cost of any service is determined by the resources currently available to perform that service, which involves also a decision by the people that that service is more needed than other services, taking into consideration the fact that even a strong nation can't do everything at once.

I am going to try in the limited time I have this morning to give you a general picture of the productive resources of the United States, what we are producing each year, what we can produce each year, what kinds of general economic and financial problems this seems to be presenting to us. Then I shall let you formulate your own judgment, as to whether the cost of adequate medical care, however financed, comes high enough on the list of our national priorities to be afforded within the general economic resources of a country as strong and productive as the United States.

Of course, I recognize that this involves certain specialized problems. We may have enough man-

power in general, but not enough trained manpower in this field. But I am deeply aware of the fact that, aside from these specialized problems with which you have been wrestling as experts, there hangs over the United States a pall of misrepresentation, a pall of fear, a pall of inadequate analysis, to the effect that we have reached a point where we cannot afford some of the things which I, and I suppose you, would place very high on the list of our national priorities.

I want to give you one striking example of the confusion on this matter which now exists. We hear simultaneously, and frequently from the same sources, two conflicting statements which enter into our consideration of every aspect of national policy, whether it be health or whether it be national defense.

We hear on the one hand that our resources, our material resources, our manpower resources, our financial resources, are now so strained by the great programs which we are undertaking that, if we did any more, we would wreck our economy.

At the same time we hear, on the other hand, and I say advisedly to a large extent from the same sources, that even with all we are doing, we will within six months or a year, run into a depression because we have built up our productive resources so greatly that we will not have brains enough to know how to use them fully, even with as large a defense program as is now contemplated.

Now from the viewpoint of fundamental economic analysis, I say that only one of these alternatives can be true. I think that neither is true, but both of them can't be true.

We can't be straining our resources to the point that if we take on any additional burden, we will wreck ourselves; and at the same time have so much of productive resources that we will run head-on into a depression arising from our inability to use the manpower and brains and technology and productive strength which we have.

We have got to choose which of those two situations, if either, confronts us. I happen to think that the second situation is closer to us than the first, although it is not inevitable. I happen to think that we have already built up our technology and our manpower and our productive resources to the point where the great problem ahead is to find ways of using them fully and wisely. Consequently, I think we must take this into consideration with respect to the health problem.

Now, in order to indicate this proposition a little more clearly, I am going to show you just a few charts.

On these charts, I have attempted to show what has been happening in the American economy during the turbulent years since 1939, and what I would project is likely to happen within a broad range over the next few years, assuming that we will be faced with heavy world responsibilities, but assuming also that we will be able to avoid a third world war. Of course, if we don't avoid a third world war, we will be in an entirely new

geometry where anything that we might be talking about now would become antiquated, so I am acting on the assumption of a continuing period of stress, but short of total war.

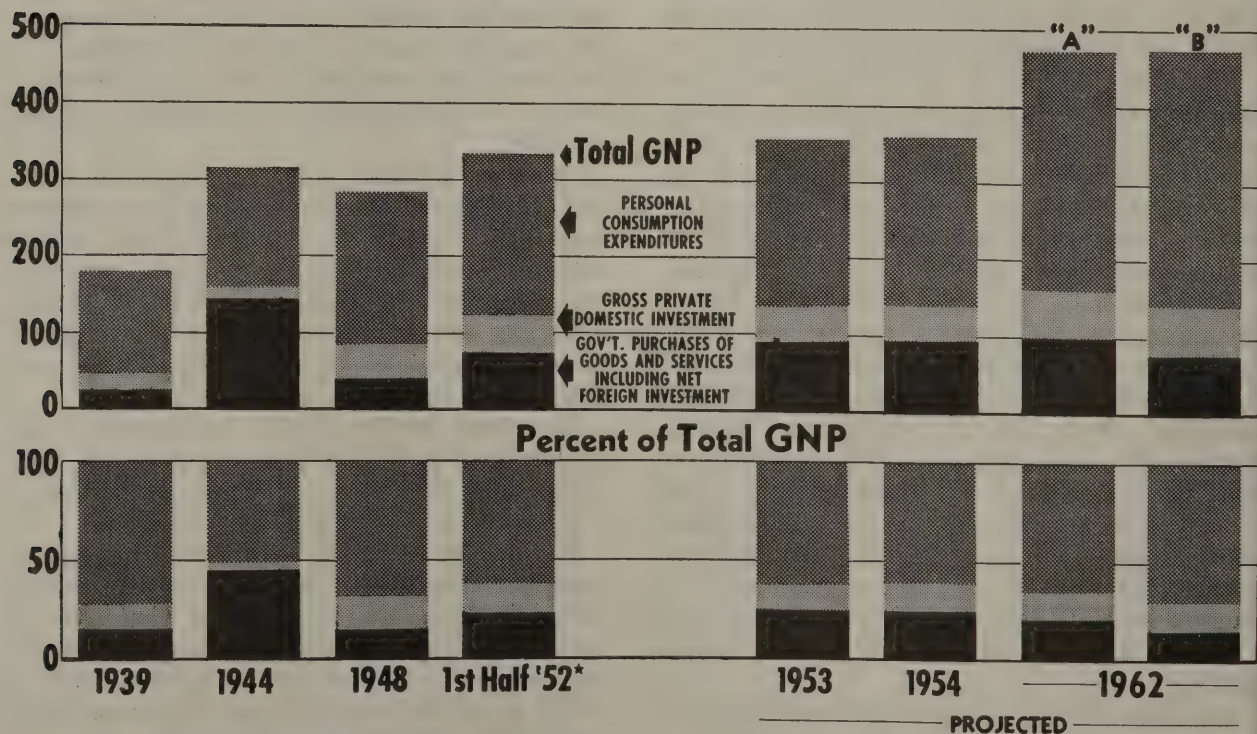
In these charts I have set forth what has occurred in the United States economy in uniform dollars, at the 1951 price level, so as to show what really has been happening to our resources. I have divided the analysis into three parts.

The top part of the chart on gross national product indicates the services and the goods which have been flowing to 155 million consumers. This is what the people have been getting in food, clothing, medical care, automobiles, and all the other things that make up the needs and niceties of life.

The middle part of the bar indicates that part of our resources which has been going into the building up of our productive strength through capital formation, through the building of factories, through the sharpening of tools, through the introduction of new technology, through all

## GROSS NATIONAL PRODUCT

BILLIONS OF DOLLARS - 1951 PRICES



\*SEASONALLY ADJUSTED  
ANNUAL RATES

PROJECTED



the things that we call business investment, and that is a very important part of the bar because it is the foundation of all of our productive strength.

The bottom part of the bar represents those programs which we as a free people have undertaken to do together because we could not do them separately, namely programs of government, Federal, State and local.

Now, in brief, what the chart shows is this. 1939 is the first bar. By 1944, we had undertaken a huge program, a program of fighting World War II, which necessitated enormously enlarged activities by the people through their Government, mostly national defense. By 1944, this bottom part of the bar, representing a new and added burden upon the American economy, was almost as large as the total bar had been in 1939. And there were many people who thought that, because of the enormous expansion of defense, the other needs and services required by the American people would be terribly strapped.

But that is not what happened, because our technology and our brains and our managerial skills so enlarged the total national product that, in the year 1944, we had more consumer goods than we had had in 1939, despite rationing, despite controls, despite the fact that some people didn't have as much because there was a more equitable distribution. In fact, in 1944, at the peak of the great war, we had a larger availability of resources for the general servicing of the needs of the people than we had in 1939.

Then World War II ended, and there were those who, having felt at the beginning of World War II that we didn't have the resources to satisfy our needs, felt that we had such great resources that we were going to slide quickly into a major depression through inability to use them. Yet, I want to point out that by 1948, and by 1950 as well, we had practically re-diverted to the supply of our civilian needs the great productive power that had been built up during the war. In other words, we had beat our swords back into plowshares. The only way we could do that was by an enormous rise in the general standard of living, which enabled us to use the productive power that we had, and to absorb it in peacetime pursuits.

And may I say that this was not made possible by the cold war. Although, unfortunately, we did have a cold war, nonetheless the programs represented by total Government programs, measured in 1951 dollars, shrank by an annual rate close to

\$115 billion, so that with a shrinkage of about \$115 billion in the annual level of public expenditures, we nonetheless maintained a peacetime economy through the enlargement of the services of all kinds to the American people.

And if these had not been that enormous enlargement of civilian services, we would have had, under most dangerous world conditions, the post-World War II depression which almost everyone had so much feared.

Then we ran into the new challenge of the Korean threat, and there were a great many people who said, and said with some *a priori* validity, that since the economy was operating at such a high level in 1950, it was utterly impossible that the additional burden of the defense program could be placed upon us without an extraordinary shrinkage in supplies available for civilian use and supplies available for business use.

I thought at the time—and it turned out to be more or less correct—that we still had a technology and still had a productive power which would enable us to carry the increased post-Korean defense burden, and at the same time continue the enlargement of both our business resources and our civilian supplies. That, in fact, is what has happened.

We find that, by the middle of 1952, while we have tripled defense outlays—and I am measuring it in uniform dollars, which means measuring it in terms of real resources, the goods, the services that are being required for that purpose—there has been a further increase in civilian supplies, and an enormous increase in the amount of materials and productive strength going into the building up of our productive business facilities.

We have now so enlarged the productive power of the United States in general economic terms that the very people who a few years ago were concerned that the defense program could not be carried without an enormous sacrifice of civilian supplies and general standards of well-being, are now concerned that even with that defense program we are not going to be able to distribute among the American people enough food, enough clothing, enough services, enough things of various kinds, to keep busy that part of our productive plant which is not absorbed in the defense program. And you would now find eight business analysts who are worried about this problem for every two who are worried that, because of the defense program, we must cut down or cut back on general services to the people.

Now let's move into the future a little bit, and I want to say that my projections are very conservative. The only way that you can indicate that a projection is conservative is by showing that all of your past projections have been very conservative. All the estimates that I made in '48 and '49 as to where the economy would be by '52, while some of them sounded unreal, far undershot the mark of what the economy actually accomplished by 1952.

My projection is extremely conservative. It does not assume any lengthening of the work week, although I think that in view of the world responsibilities that we now face, some people might work a little more than 39 or 40 hours a week. It doesn't assume drawing into our labor force any of the kind of secondary workers who were drawn in during World War II, except those who decided voluntarily after World War II that they wanted to supplement the family income by remaining in the labor force. It doesn't assume the application of atomic energy or

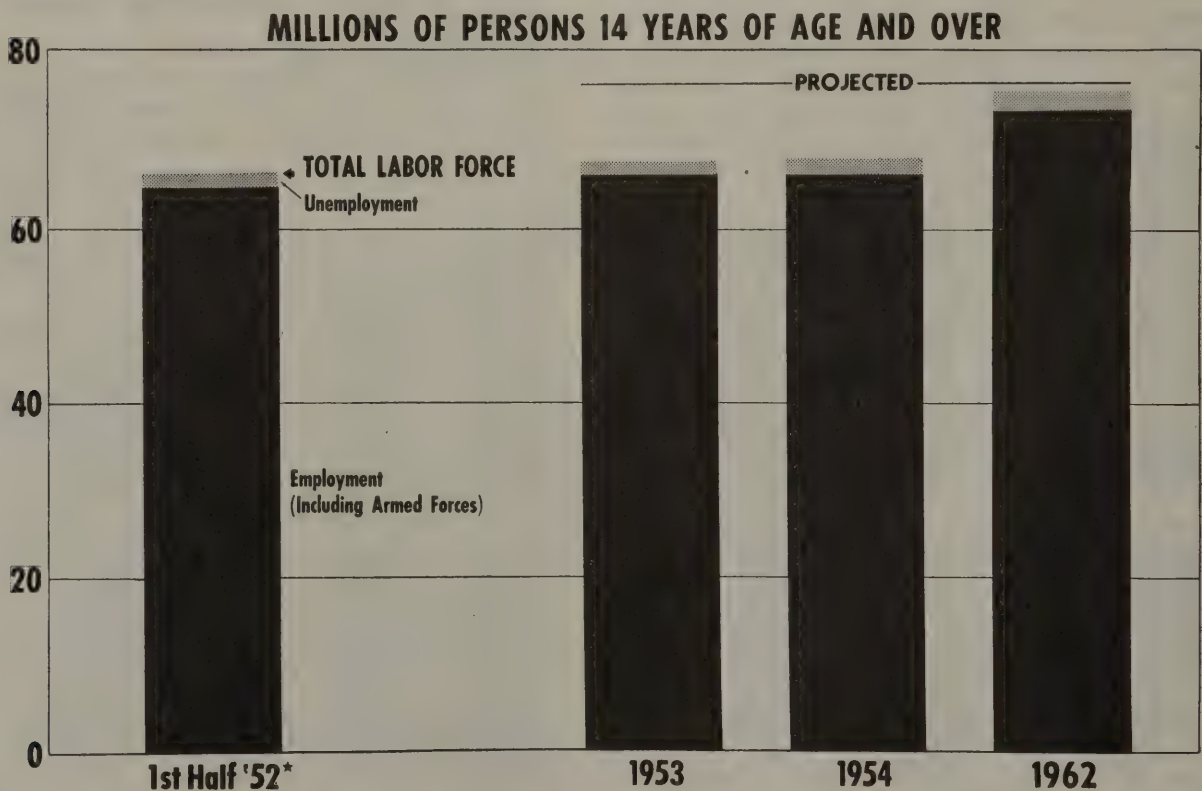
any particular new discoveries of science or invention to the American scene. In other words, it assumes a rate of productivity increase approximately similar to what we have been registering in recent years—although I think in fact that the productivity increase will be a little bit higher.

Now, assuming all of that, I have projected the now estimated cost of the defense program over the next few years, and then attempted to estimate how large will be the amount of our national product left over for other purposes.

And what I come out with is this: contrasting the year 1954 with the year 1952, I estimate that there will be a need for an increase in the annual civilian consumption of goods and services of about \$12 billion. With reference to a 10-year period, it would seem to me that by 1962 we would have to have within this country a level of distribution of consumer goods and services about \$100 billion higher than at the current time.

Now, let me just take that \$100 billion figure and talk about that a little bit. To simplify it,

## LABOR FORCE



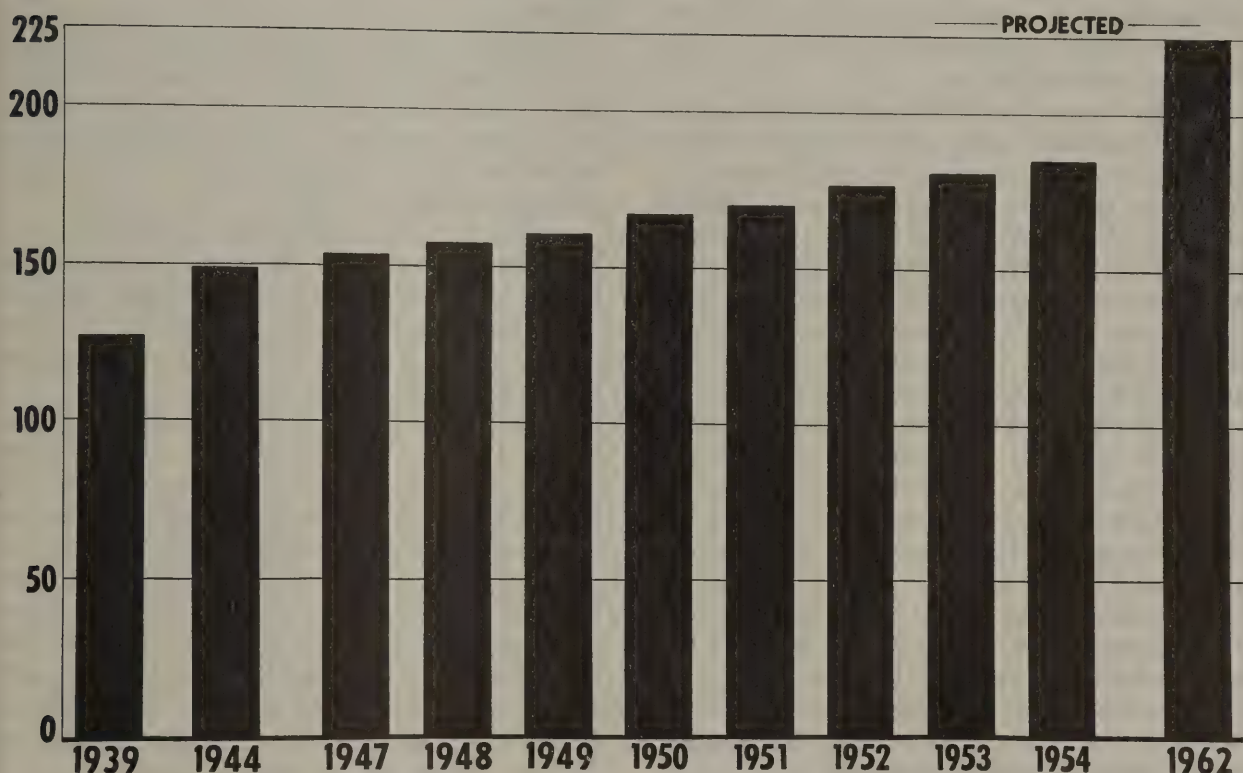
\*SEASONALLY ADJUSTED



# PRODUCTIVITY

## INDEX OF GNP PER MAN-HOUR IN CONSTANT PRICES

1929 = 100



it means that without strain we will have within ten years a technology, a labor force, a degree of business skills so vast that, in order to avoid wide-scale unemployment of manpower and materials both on the business side and on the labor side and on the farm side, we will have to find about \$100 billion worth of additional markets in the United States for consumer goods and services. And this assumes a large and healthy recognition of our world responsibilities and a high level of investment abroad.

Now, where are we going to find in the United States this market for \$100 billion of additional consumer goods and services? That is the essential economic and social problem that we face.

I am inclined to think that a large part of that additional market for goods and services will have to come in new products. For example, while there are many families in this country who suffer from malnutrition, the standard of food supply in the United States is fairly good. This is also true

to a degree with respect to such things as clothing. We all know that, while the standard of covering of the American people during the past few years has been rather good, it is quite possible that even from the long-range point of view we have over-expanded our textile producing industries.

I also think, that there are some limits to how far we can expand the consumption of automobiles, either from the viewpoint of cars or from the viewpoint of roads. Consequently, I think that a great area in which the standard of living must further improve at a fast rate, is in those types of services where we have not yet built up to a satisfactory standard.

One of the most important of those obviously is housing, which is intimately connected with health, and which affords great outlets for business investment. Another, I think, is in the expansion of health services.

It seems to me that a great expansion of the health services of the American people over the

next 10 years, with the allied expansion of housing facilities, is one of the great outlets that we have for the progressive expansion of our standard of living, for the progressive enjoyment of our productive facilities, which alone is the alternative to those productive facilities becoming a Frankenstein to destroy us rather than a blessing which they were intended to be.

Before closing, I wish to make one more point.

You have heard a great deal about various nations of the world which have been strapped by dollar shortages, by gold shortages, by financial problems of one kind and another. Let me say in summary that there is no nation in modern times which has run into financial problems except as those financial problems were a reflection of their resource condition. The problems of India, the problems of England, the problems of the countries of Western Europe, stem from the basic fact that they have not the manpower and the productive resources to satisfy their various national needs in the proportion demanded by the priorities of their people, and therefore they have financial problems.

The people of the United States have financial problems in a sense, but so long as we have productive resources begging to be used in the servicing of our people, dangerous financial problems will arise only if we let those resources run lag-gardly, that is, if we do not use them.

The great economic problem that this country faces is how we are going to utilize fully our resources over the years ahead. I see a great opportunity in the expansion of health services. I am not an expert as to how these services should be financed, or how costs should be borne. All I am interested in is seeing it done in the way that makes adequate health services progressively available to the people who need it most and who, under the current income structure or any projected income structure, are less able to get adequate medical service under the system as it now operates. It is by enlarging the base of those able to obtain services that additional markets are created, in the field of health services as in other fields.

EDITOR'S NOTE: The remainder of Mr. Keyserling's remarks followed the paper presented by Mr. Schmidt and were, in part, in response to questions from members of the Commission.

### (Replies to Questions)

When we, the people of the United States, decided in the peaceful and different 19th Century

that we wanted to get a rapid expansion of the West, we, the people, subsidized the railroads; we, the people, set up homestead laws; we, the people, did a lot of things that even the rugged and vigorous people moving westward couldn't do by themselves.

And when we, the people, in the 20th Century decided that there was need for rapid tax amortization to help industry to expand, we, the people, did it, and heard very few complaints from the industries which benefited thereby, and I have championed that program.

And if we, the people, should decide that in terms of our resources we want the growth of health facilities to be more rapid than they are under the normal processes of individual decision, then I suppose that we, the people, will find some way to do it.

Now, on the specific question about figures, the figures I have already presented are figures on over-all growth. Due to the shortage of time, I have not been able to make my full presentation.

However, on a per capita basis, allowing for price change, allowing for higher taxes, and allowing for population growth, the annual per capita personal income of the people of the United States has risen by about \$425 since 1929, or more than \$2,100 for a family of five. This is the increase in spendable income after taxes, adjusting for price change and population growth.

Period:	<i>Per capita disposable income, 1961 prices (personal income less taxes)</i>
1929.....	\$1, 024
1939.....	1, 035
1948.....	1, 397
1952: First half <sup>1</sup> .....	1, 452

<sup>1</sup> Seasonally adjusted annual rate.

Now, this isn't something which needs to be demonstrated statistically to this group. What informed person doesn't know the immense increase which has taken place in our productive capacity and our standard of living?

Why, taking the part of the country which I come from, a rural part of the South where this problem of additional services is particularly acute, I remember when the average working family in that part of the country was living on a diet of grits and a little cow peas poured over it. What are they eating today?

I remember when they were living in shacks, and there are still too many shacks, but look at how much better they are housed now. And they



are getting better medical care than they were, although that hasn't improved as rapidly as some other things.

No one can deny there has been enormous progress. And I think that the potential for further productive progress is even greater now, partly because of the enormous expansion of our industrial strength, the industrial strength built up by our enterprise system, not without considerable galvanizing influence by the things that we, the people, have done together.

And all I am saying is that, with respect to the burden of finances upon the economy, with respect to our resources, there is room within the United States within the next 10 years for an enormous expansion of health services to the people. We have the manpower for it, we have the brains for it, we have the physical resources for it, we have the plant for it, and we have the means of financing it.

Whether this should be done locally or Federally, whether it should be done through one system or another is, as I said at the beginning, a matter to be considered by you and I don't intend to go into that.

I think it requires a rounded program, and I have wanted to address myself solely to the question of whether our resources are or are not strained to the point that we need to go slow with respect to enlarging these services.

I think our resources are such that we can afford as a nation to expand these health services greatly. I value free selection, free choice, individual initiative, but I don't think that health and educational services cut across initiative.

I think there are many parts of the country where we are now operating at a relatively low standard of productivity for the very reason that health services and educational services and other basic services are not at a high level. I think the history of our industrial development will show very clearly that it is where these services have been most adequately performed that we have most fully released the energies and the initiative and the variability which has been at the source of our industrial growth.

There are two questions:—one, what we can afford, and the other the question of priorities. I have tried to give some measurement of what we can afford as a nation.

Now, the only way I can measure what we can afford is by what our expanding productive potential is, conservatively figured. I agree completely

that any talk about getting something for free is nonsense. You don't get anything free. Everything you get in this world has to be paid for. It has to be paid for with human effort, with skill, with brains, with plant and with resources.

The method by which you finance something cannot hide, cannot avoid, the cost. The only question to be considered in how you finance it is whether the method of financing galvanizes rather than retards the service that you want to get, and whether it provides a distribution of the cost on a more equitable basis according to the free tests of a fair people.

I have tried to give an overall measurement of what we can afford by saying that we easily have the power and the potential within this country of expanding our civilian supplies to the people, of all kinds, ranging across food, clothing, health, automobiles, radio sets, television, etc., to about \$100 billion higher at an annual rate 10 years from now than the current annual rate.

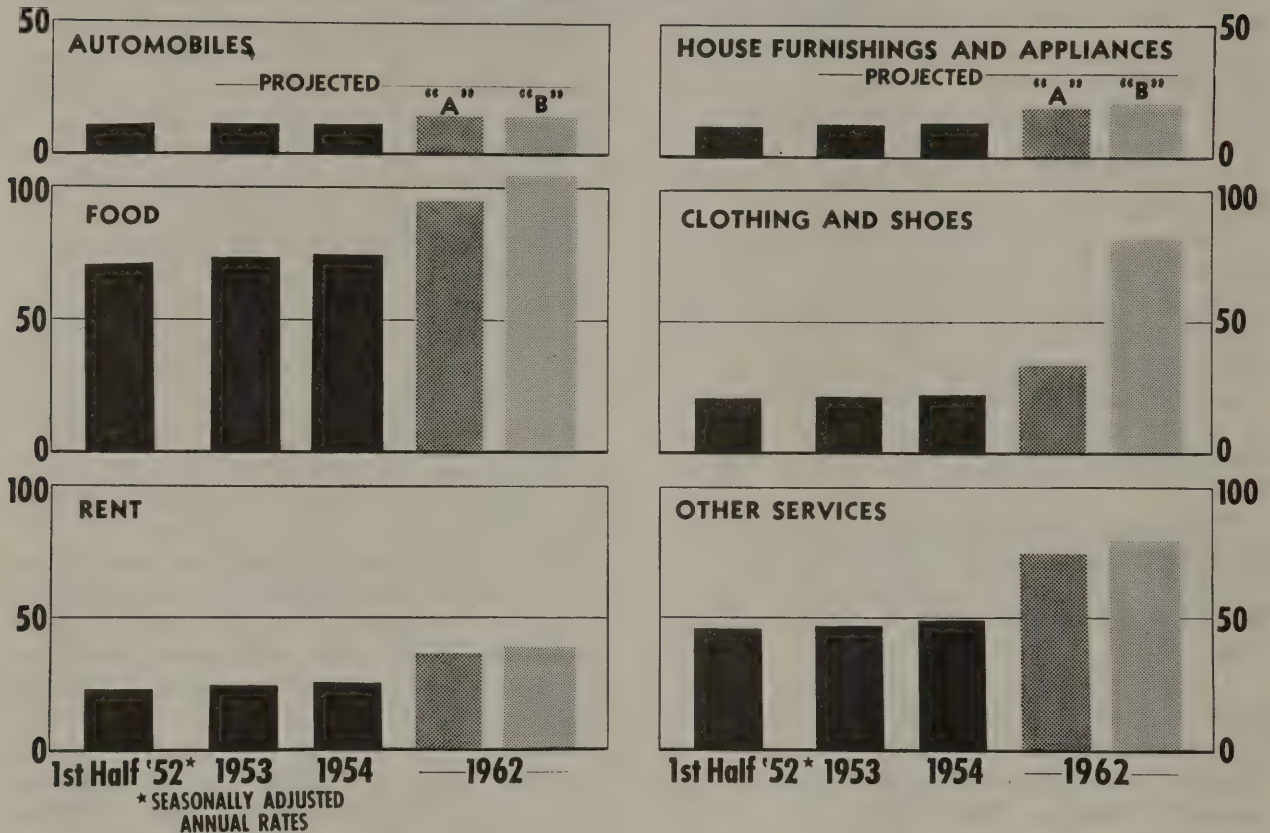
Now, you ask the question what part of that \$100 billion, roughly speaking, should be directed toward the expansion of health services. I can't answer that in specific terms. I think it would be pretentious for me to say the answer is 2 billion, 3 billion, 4 billion, 5 billion. All I can lay before you is the fact that we are going to have to distribute goods and services to the American people by \$100 billion a year more, speaking conservatively, by 10 years from now than we are doing now.

And then you have to judge, whether or not health services occupy a high enough priority to justify the initiation and improvement of programs which will allocate a larger part of our progress to the improvement of the people's health, viewing what you know about what the people are getting by way of 15 million television sets having been added to American homes in the past few years, the number of automobiles, the standard of food and clothing, etc.

If you believe that, under the present organization of health services as they are now operating, a sufficient part of our increasing productive capacity will flow into the improved health services of the American people, particularly for those whom you believe need it most, if you believe this, then there is no problem, there is nothing for you to do. But if you don't believe this, if you don't believe it will happen automatically, then there is a problem to find out how a sufficient part of this productive capacity can be channelled into the

# CONSUMER EXPENDITURES FOR SELECTED ITEMS

BILLIONS OF DOLLARS - 1951 PRICES



health field. That is the most specific answer I can give you.

I would say that, in our kind of economy, I would not be concerned about several billion dollars a year more going into the health services of the American people than is now going into that particular priority, because I think it is a very high priority, and I think that it is one of the areas where we have lagged behind.

I don't think it is my job to set an exact figure. I can only give you a broad perspective of the fact that I think there is plenty of room in the American economy for the support of a wider and more deeply penetrating and more effective health service to the American people, and that we can afford it.

I did not say that progress in the United States depended mostly on manpower. I said it depended on manpower, but even more on technology and brains and organizing skills. We couldn't keep up with the Russians and their satellites if it

were simply a question of manpower. We can keep ahead of them because we have doubled the rate of output in this country about every 20 years, more or less, while the population has doubled about every 50 years, more or less.

Now, coming to the other question you raised, I recognized at the beginning that you have a special problem of technical skills in this health field if you are going to enlarge health services. I think, very frankly, that the problem of the speed and forthrightness and organizational effort that has to take place to get enough trained and skilled personnel into the health field has been somewhat understated in the treatment of this problem. But it is still true that the number of people, assuming that they have got to be trained, which can be devoted to health and related services in our kind of economy, depends in part on what part of our labor force needs to be employed industrially for certain other basic things. I feel that there is a long-range trend in our economy, in



which technology is improving so much that we are going to have to employ relatively more people in the services which add the final increment to a good standard of living, and add less relatively to the old-line pursuits.

Agriculture is a striking example of this. We have had such phenomenal changes in agricultural production over the past 10 or 20 years, and we have barely begun to apply known science to production in agriculture, that the agricultural population, the people earning their living from the farm, has steadily decreased and is much lower now than it was 10 or 20 years ago, despite an enormously larger agricultural production.

I don't say that the number of people employed in basic industrial pursuits, such as the making of automobiles, the making of household equipment, the making of clothing, etc., is going to decrease absolutely. But I do say that I don't think in the further growth of our standard of living there is as much room for relative progress there as in some of these service areas.

Therefore, by 10 years from now, when we will have a civilian labor force of approximately 10 million more than we now have, I think a relatively larger portion of that 10 million will have to go into these service activities, including medical care, both from the viewpoint of employment as such, which is of secondary consideration, and from the primary viewpoint of employment for the things that we, the people, need most. Consequently we have the manpower resources, to answer your question, to make progress in this direction.

Now, you don't automatically create that manpower by having people leave the farm or having people disemployed by industry. You have to have a training program going along with it.

You have to train doctors, you have to train nurses, you have to have the hospitals and other plants in which they are to work, but that is all a part of the problem of building on a balanced basis an expansion of all the types of facilities, both human and physical, which are needed to enlarge and distribute on a wider basis adequate medical care.

I would think that, over the next decade, if we maintain a healthy economy, we would have less people in the lower income groups than we have had in the past.

The history of the past two decades or so has been that the people in the lower income groups

have benefited more, not in absolute dollars, but relative to the size of their incomes, so that there has been in the general course of our economic development greater relative improvement among the lower income groups than among the upper income groups.

There has been some tendency, not toward equalitarianism or toward equal income, but there has been some tendency toward less unequal distribution of income.

I would think that this general tendency would continue, so that 10 years from now the problem of so-called low income families would not be as acute as it is now.

However, let me say this, and it is very important. What constitutes a low income family and what constitutes an adequate standard of living is partly subjective, it is partly a matter of the nature of our national life. What we call a low income family in America would in India be regarded as an amazingly high standard of living. There is really no way of measuring what is a low income family except by whether or not you have masses of families living at a lower standard than our type of economy and our type of society can open up opportunities for. That is true of housing, that is true of health, that is true of almost anything else.

You all remember, you who have been working in these related fields, that 20 to 30 years ago it was fashionable to set up what was considered an adequate standard of living for a family of four or five in an urban area. Now, if you set up a budget of that kind today, it would be higher, not only in dollar terms but also in real terms, because the concept of what is an adequate diet and what is an adequate level of recreation and what is an adequate level of education and of health and of housing changes as the economy becomes more productive. And that is the hallmark of American progress.

So I would say that, while 10 years from now we will have less families in these low income brackets by the tests of today, we will still by the tests of tomorrow, by the test of the world in which we will then be living, we will still feel that measured by an economy which is \$100 billion more productive, we will still have a big job to do. If we should ever rest on our oars, then we would have foregone the very spark of our progress. We should never do that.

# AMERICA'S CAPACITY TO MEET EXISTING HEALTH NEEDS

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In a country as rich and productive as the United States, most individuals should be able to make provision through personal or voluntary group action for adequate health facilities. The several layers of government should be able to provide essential public health services.

Good health is of paramount and over-riding importance to the individual. A vigorous and healthy people are important to our economic progress, our national security, and to our social and political tranquillity.

These matters are scarcely open to debate. I should, however, like to discuss these two questions:

1. What is our ability to meet existing unmet needs?

2. Can our expanding economy provide for adequate health services?

I do not profess intimate or professional knowledge of what "existing unmet needs" might be. The second question, likewise, has two question-begging or ambiguous words, "expanding" and "adequate."

Failure to meet health needs may be due not so much to a lack of "ability" as to the low priority which many, perhaps most, individuals put on expenditures for health. How many individuals in this room "see their dentist twice a year," as health experts advise? How many of us have an annual health audit? Or even a quinquennial health examination? Why is the proportion so low?

Why will one not hesitate to go into debt for a TV set or an automobile, and thereby mortgage his income for months and even years ahead, but will think it unconscionable and unreasonable to have to borrow for an operation or other adequate

medical treatment? Is an automobile more important than good health? Indeed, with all the insurance programs available, borrowing is not even the alternative.

Why do we respond so readily to the urge for another cigarette, a cigar, another beer or a whiskey and soda, or an evening at the night club? Yet an ache or pain, or even a persistent lethargic feeling, fails for the most part to stimulate us to consult competent counsel. Why, according to one recent dental survey, did 90 percent of the children need dental care?

Is it due primarily to lack of ability to pay? Or, is there deeper seated causation at work?

These last two questions should be answered by this Health Commission in its effort to solve the question of our "ability" to meet unmet health needs. Is it our financial ability or psychosomatic traits that are involved? Or both?

Psychologists and psychiatrists have identified innumerable human traits and given them names, but so far I have encountered no statement of a "psychological law" which would explain the aversion to spending money for one's own health and that of one's family. Because this has not been done, I shall try to state such a "law" for your preliminary consideration, with the hope that you can put it into the appropriate technical language, acceptable to the expert and stimulative to the man on the street.

Here it is: The human individual is so constructed that generally he is inclined to believe:

That his body and brain do not require much medical maintenance and repair

That they are capable of sustaining a large amount of self-imposed punishment

That the consumption of a few relatively inexpensive over-the-counter medications will overcome whatever tendencies to disability may show up



That money spent for the doctor and similar services is spent for something not wanted in the first place (sickness and disability)

That it is better to wait until one is ill enough to get one's money's worth from a visit to the doctor

That making and keeping an appointment with the dentist and physician and spending the necessary time involved is a nuisance and time-consuming

That the result of such an interview might be unpleasant news both in terms of dollars and time

That personal and family pressures to spend money on more pleasant things bring more tangible and immediate gratifications.

That this "psychological law" will explain all inadequacies of health services, no one will argue. That it explains a part of the problem, likewise will not be denied. Nor does it apply to all equally.

In 1951 we spent for health and medical services individually and through Government about \$13.6 billion. In the same year we spent for alcoholic beverages and tobacco and smoking supplies \$13.2 billion, almost as much. Consumer expenditures for health and medical services came to \$8,976,000,000, as against almost as large a figure for alcoholic expenditures alone of \$8,450,000,000. Consumers spent more than 50 cents on smoking supplies for every \$1 spent on health and medical services.<sup>1</sup>

Recent data on family medical care expenditures are shown on the next page. This is a Bureau of Labor Statistics study of consumer expenditures among a representative group of wage-earner and clerical-worker families.<sup>2</sup> It will be noted that in city after city only a small fraction of the average family income is spent on medical care. Four to five dollars per \$100 of income is about what is spent for this purpose.

Without denying the "lift" that may be gotten from a whiff of tobacco or the thirst-quenching power of a liquid that is not pure water, and with-

out pleading the case of the total abstainers, it is worthy of note that the amount of expenditures for these purposes was remarkably close in many cities to the total expenditures for medical care and in the "City of Brotherly Love" they exceeded them. This comparison can be quickly seen by examining the figures.

The Health Commission may find it worthwhile to make a further detailed study of this Bureau of Labor Statistics research project in its attempt to come to sound conclusions on this question of "ability" to meet health needs and, particularly, to determine what the Commission itself can do to encourage the establishment in the mind of the individual of an adequate priority for health expenditures.

All this in no sense implies that nothing more is needed. The indigent and the medically indigent constitute special problem areas.

Unquestionably, in many communities, there is need for additional public health work—a matter discussed by others.

There is vast opportunity for expanding voluntary health insurance programs. It is particularly important to expand insurance programs to meet catastrophe hazards. Families with medium or even somewhat above medium incomes can budget only with the greatest of difficulty for such emergencies and no one knows when such a hazard will hit. But these insurance programs raise problems of their own, to which I refer later.

"Our Economy", to quote from the question, "can provide for adequate health services" in the same sense that it can provide adequate whiskey, adequate cigarettes, adequate automobiles, adequate kitchen facilities, or adequate anything else that is set high enough in the priority of the desires of the average citizen.

If, over the last quarter of a century, the individual had been as eager for deluxe medicine as he has been for some of the other items mentioned, we would at present have an abundance of medical practitioners and facilities, just as in the case of automobiles. Our economy would have provided medical care just as it has provided an enormous increase in our beauty care personnel and facilities.

If we had kept the automobile very low on the priority list of our desires, and suddenly raised its priority, we should have to wait some time before the necessary technical preparations for abundant cars were made. This is true also in medical care.

<sup>1</sup> Source: U. S. Department of Commerce.

<sup>2</sup> Monthly Labor Review, August 1952.

# Wage-Earner and Clerical-Worker Families: Average Income, Expenditures, and Savings in Selected Cities, 1950

Item	New York N. Y.	Chi- cago, Ill.	Los An- geles, Calif.	Phila- del- phia, Pa.	Bos- ton, Mass.	Pitts- burgh, Pa.	Minn- eapo- lis, Minn.	Kan- sas City, Mo.	Port- land, Oreg.	Canton, Ohio	Char- leston, W. Va.	Lynch- burg, Va.	Grand Forks, N. Dak.	Ra- vena, Ohio	Pu- laski, Va.	Mad- dill, Okla.
Number of families.....	234	211	195	176	147	199	104	118	110	105	78	33	29	27	37	26
Average family size <sup>4</sup> .....	3.2	3.3	3.2	3.3	3.5	3.7	3.3	3.1	3.3	3.3	3.4	3.7	3.5	3.3	3.7	3.8
Average expenditure for current consumption: Total.....	\$4,248	\$4,575	\$4,452	\$4,200	\$4,301	\$4,107	\$4,029	\$3,797	\$4,097	\$3,811	\$4,059	\$3,492	\$3,659	\$3,746	\$3,116	\$2,931
Housing, <sup>3</sup> fuel, utilities, and household operation.....	831	885	781	806	942	734	798	736	785	664	684	716	763	643	557	453
Housefurnishings and equipment.....	249	271	339	284	259	270	271	280	258	287	361	219	257	375	189	265
Food.....	1,455	1,376	1,393	1,387	1,352	1,317	1,141	1,073	1,144	1,121	1,163	1,074	1,083	1,062	1,004	945
Alcoholic drinks and tobacco.....	179	175	133	217	172	180	163	149	113	165	102	178	139	110	104	57
Personal care.....	92	104	97	103	101	94	84	116	85	104	101	81	93	93	59	90
Clothing.....	544	535	455	499	470	495	404	453	427	462	534	387	463	455	373	390
Medical care.....	220	259	248	206	203	196	239	185	247	209	241	217	191	143	140	162
Recreation, reading, and education.....	282	290	274	257	262	262	249	213	246	249	216	141	241	231	161	118
Transportation.....	354	634	754	431	464	522	617	557	753	508	603	437	393	611	496	388
Miscellaneous.....	42	46	68	30	76	37	63	35	39	42	54	42	36	23	33	63
Insurance.....	169	200	206	185	169	193	175	177	165	159	180	211	149	146	130	93
Gifts and contributions.....	164	153	130	128	121	112	135	127	121	109	163	167	98	75	125	63
Net increase in assets and/or decrease in liabilities.....	0	0	0	0	0	0	0	0	0	4	5	0	0	49	61	0
Payment of principal and down payments on owned homes.....	151	155	323	101	108	136	436	370	208	368	70	54	543	702	81	62
Personal taxes <sup>5</sup> .....	268	366	355	356	294	294	316	350	342	281	363	211	221	281	203	115
Money income <sup>1</sup> .....	3,990	4,363	4,298	4,168	3,886	4,115	4,091	4,065	4,065	3,976	4,361	3,597	3,753	3,720	3,364	2,885
Other money receipts <sup>2</sup> .....	8	12	176	13	14	25	23	24	9	18	40	26	0	0	2	16
Net decrease in assets and/or increase in liabilities.....	291	429	161	156	347	216	181	3	219	0	0	196	15	0	0	41
Balancing difference <sup>6</sup> .....	-292	-124	-153	-176	-344	-56	-44	-9	-90	-89	-6	-51	-138	-296	-66	-145
Percent of expenditure for current consumption.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Housing, fuel, utilities, and household operation.....	19.6	19.3	17.5	19.1	21.9	17.8	19.8	19.4	19.1	17.5	16.9	20.5	20.9	17.2	17.9	15.5
Housefurnishings and equipment.....	5.9	5.9	7.6	6.8	6.0	6.6	6.7	7.4	6.3	7.5	8.9	6.3	7.0	10.0	6.1	9.0
Food.....	34.2	30.1	29.3	32.5	31.5	32.0	28.4	28.2	27.9	29.5	28.6	30.8	29.6	28.4	32.1	32.2
Alcoholic drinks and tobacco.....	4.2	3.8	3.0	5.2	4.0	4.4	4.0	3.9	2.8	4.3	2.5	5.1	3.8	3.0	3.4	2.0
Personal care.....	2.2	2.3	2.2	2.5	2.3	2.3	2.1	3.1	2.1	2.7	2.5	2.3	2.5	2.5	1.9	3.1
Clothing.....	12.8	11.7	10.2	11.9	10.9	12.1	10.0	11.9	10.4	12.1	13.2	11.1	12.7	12.1	12.0	13.4
Medical care.....	5.2	5.7	5.6	4.9	4.7	4.8	5.9	4.9	6.0	5.5	5.9	6.2	5.2	3.8	4.5	5.5
Recreation, reading, and education.....	6.6	6.3	6.2	6.1	6.1	6.4	6.2	5.6	6.0	6.5	5.3	4.0	6.5	6.1	5.2	4.0
Transportation.....	8.3	13.9	16.9	10.3	10.8	12.7	15.3	14.7	18.4	13.3	14.9	12.5	10.8	16.3	15.8	13.2
Miscellaneous.....	1.0	1.0	1.5	.7	1.8	.9	1.6	.9	1.0	1.1	1.3	1.2	1.0	.6	1.1	2.1

<sup>1</sup> Total money income from wages, salaries, self-employment, receipts from roomers and boarders, rents, interest dividends, etc., after payment of personal taxes (Federal and State income, poll, personal property) and occupational expense.

<sup>2</sup> Includes inheritances, large gifts, lump-sum settlements from accident or health policies, which were not considered current income.

<sup>3</sup> Includes rents for tenant-occupied dwellings, lodging away from home, and current operation expenditures of home owners. Excludes principal payments on mortgages on owned home.

<sup>4</sup> Family size is based on equivalent persons, with 52 weeks of family membership considered equivalent to one person, 26 week equivalent to 0.5 persons, etc.

<sup>5</sup> Includes Federal and State income, poll and personal property taxes.

<sup>6</sup> Represents the average net difference between reported money receipts and reported money disbursements (i. e., money income, other money receipts and not deficit minus expenditures for current consumption, gifts and contributions, insurance, and net surplus).

Now we might turn briefly to some principal distinctions between various items referred to and medical care. Perhaps a basic distinction is that the normal person continuously wants the various items mentioned—including beauty care if that person is a woman. Furthermore, he cheerfully pays for them. He buys a \$2,500 automobile on the installment plan because he wants it. But a \$2,500 operation he may regard as a violation of social justice.

I have never heard of a forum or a hearing on whether our economy can provide these other things.

The distinctions mentioned between medical care and other goods and services, leads to the possibility that the question, "Can our expanding economy provide for adequate health services?" may be intended in fact, to ask: Is our economy so expanding that, by exercising the taxing and

spending power, Government can provide adequate medical care without the ordinary citizen having his ability to buy other things noticeably curtailed? In other words, can he get everything he is now getting with his take-home pay, plus medical care, in lieu of some extra things he would otherwise hereafter get by virtue of the expanding economy and an otherwise expanding net take-home pay?

We are, of course, discussing a much broader subject than individual medical care. We are also discussing public health services—quarantine, pure food, sanitation, medical education, etc.—which are not individual purchases for individual needs. Such services are like our public road system, while the medical treatment of the individual is more analogous to his private automobile. With more and better private automobiles we have voted to tax ourselves for



more and better roads. The analogy holds fairly well as to our expenditures for public health services.

In some ways hospitals may be considered analogous to garages—providing repair services in individual cases. The analogy extends to the fact that the charges are high and promise to go higher. No one is very happy about this.

But the analogy does not hold exactly any more than that between buying a car and buying medical care. While it is true insofar as the average citizen is concerned, it is not true when we get down to the poverty level. We act on the assumption, at least at present, that a person who can own a car can pay for its repair. So we have no charity garages. But a person who needs health repairs may not be able to pay, so we have charity hospitals and quasi-charity hospitals, and a good deal of charitable and quasi-charitable medical care. Neither voluntary nor compulsory insurance will completely meet this type of problem.

If provision for hospitals and various health services were given a top priority, it is inconceivable that our economy could not in due course produce almost any desired volume of such services. However, there always exists a point at which an expenditure of effort for a particular kind of service or activity means a diminution in the amount available for some other form of service or activity. There are almost no limits on what the economy might undertake to do in any one field: highways, housing, dams, schools, health, defense, and many other areas of activity. The economy could not undertake to do the potential maximum in all areas simultaneously and, therefore, a question of priority arises. The question then becomes one of how best to determine the allocation of economic effort among the various potential outlets.

With regard to the matter of health and health services, is it not wise to keep such choices close to the people affected? The proponents of compulsion feel that an inadequate amount of economic goods and services is directed into health and medical channels and, therefore, Government should step in and compel an increase. Isidore Falk wants to do by force what the people have not been willing to do voluntarily.

One of the objectionable features of this approach is that it denies to the individual the right to make decisions as to how his income should be allocated—whether for food, medical services,

etc.—and, therefore, takes away from him a desirable opportunity to pass upon the worthwhileness of various elements of health and medical services. The public has shown a willingness to pay an increasing amount for hospital care, but it is not likely that a point can be reached where the cost of hospital care exceeds what they are willing to pay and, consequently, might prefer to spend any excess amount in some other way; for example, some form of home care. Then, also, beyond a certain indefinite point, the expenditure of further funds for medical care might yield little or no additional net return either of an economic sort or in the form of greater satisfaction to the individual.

We can “afford” adequate health services. But it is a difficult decision to make as to what volume of services is desirable from the economic, social and individual viewpoints. The various factors affecting health are complex and have not been blueprinted. For example, there are many uncertainties as to the relation of food and housing to health, and it is questionable whether an improvement in the area of nutrition is not at least as important as improvement in medical services as such.

Similarly, in the field of medical services themselves, the situation is far from stabilized and no one and no group seems to possess the wisdom for determining what types of services, procedures, techniques, etc., need to be expanded and which, if any, diminished.

And to go a step further, who on this Commission is prepared to show that consumer expenditures on a TV set or an automobile may not help to produce human satisfaction, contentment and even better mental health?

Indeed, here we are dealing with the very foundations of our civilization and culture. We are dealing with values—the problem of values in a free society.

The growth of the insurance programs to meet medical care costs has been extensively presented to this Commission. The case for more expansion is a strong one. Employers should be instrumental in their promotion. While the indigent may be beyond their reach, many of the so-called medically indigent would not be in this category if insurance programs were extended and broadened over a period of time.

But all these insurance programs have hazards of their own as the insurance carriers writing total and permanent disability insurance up to the

1930's found out, to their disaster in some cases. When the individual does not directly pay the full cost of any service on even an insurance program, there is, of course, the danger of wasteful use of human and other resources.

There is danger of the supplying services, during a strong market for their services, becoming less cost-conscious than they ought to be or taking advantage of a seller's market. The fire and casualty companies long ago found that 100 percent insurance is dangerous. Plans with the deductible feature were developed. The individual, the family, the beneficiary—all of these must be given a stake in minimizing waste and eliminating non-essential services.

The suppliers of medical services—physicians, hospitals and those who provide other services and supplies—must be provided incentive to keep their own costs down. Perhaps more competition is our only source of discipline in many of these fields.

The British Socialized Health Service has had to renege on its promises of free medicine and now charges for certain supplies and facilities. Waiting lists in some British hospitals run up to two years.

When things are free, there normally is no possible limit to the demand for them. Under subsidy this same tendency prevails. This is another one of those psychological or economic laws which any sound program must recognize.

The basic characteristic of the Welfare State is that it cuts the historic, traditional tie between a man's income and his effort. For some services, we all recognize that it is desirable to cut this tie—public libraries, free public education and certain public health services. But there is no substitute for individual responsibility and incentive and the discipline of the market in the overwhelming majority of human and economic relationships.

An English observer put it succinctly this way:

The central objection of the Left to the reduction of food subsidies is that it hits the poor more than the rich. But the purchase of anything absorbs more of the income of the poor man than of the rich. This is the main reason why men strive to avoid poverty. They can avoid poverty only by working harder and producing more; and their efforts tend to make goods cheaper for everybody.<sup>3</sup>

Here a word must be said about federal grants-in-aid. At times such aid to State and local

governments may thwart a complete centralization of power and authority. This may help to keep the program closer to the people: the beneficiaries, the employees, the employers and the taxpayers generally.

But such "aided programs", some authorities believe, tend to come at the expense of other more worthwhile programs for a very obvious reason. Under a 50-50 matching grant, the State and local people are apt to think, "Where else can we get a 'free' dollar for every dollar we raise locally?"

A clear distinction should be made between "national problems" and "nationwide problems". Fire control is a nationwide problem, but scarcely a national problem. Unless, there is involved a clear-cut national problem, there is good reason to believe that we get a better overall allocation of human and other resources by relying primarily on local willingness and capacity to raise tax revenues.<sup>4</sup> No evidence has been presented to this Commission that health (with the exception of limited phases of public health work) is a truly national problem in the same sense that national security is a national problem.

The forces of growth and expansion in our economy have been strong. We have made progress in raising our standard of living and we have held our own, or a little better, even during periods of war and high levels of mobilization. But this growth has been somewhat artificial, fostered by strong inflationary pressures.

The American people like the growth but they seem determined to arrest the inflationary pressures. Furthermore, we do not know what the military will demand and get. Thus we do not know what margin we will have for increased medical and other worthwhile expenditures.

Our economic progress in terms of a rising standard of living recently has not been keeping pace with our historical record. Progress does not just happen and there are a number of clouds on the horizon. In terms of consumer real income and well-being, our rate of progress in the last couple of decades has not kept up to the rate of the 1920's.

In the first half of 1952, the American economy was turning out goods and services at a rate of about \$341 billion per annum.

In 1939, gross national product (GNP) was \$91 billion. At present it is 3¾ times as large

<sup>3</sup> *The Individualist* (London), June 1952.

<sup>4</sup> For more extensive discussion see: *Federal Grants-in-Aid*, Chamber of Commerce of the United States, Washington 6, D. C., 33 pages.



in dollars. At first glance, one might conclude that the American people are  $3\frac{3}{4}$  times as prosperous now as prewar, and such a claim is carelessly being made in some quarters.

But the facts are quite different for four reasons:

(1) Since 1939, the role the Government plays as a consumer of goods and services has vastly expanded.

(2) Gross private investment, meaning expenditures for building, equipping and modernizing our factories, is now at a much higher level. (Again the increasing role of Government is a factor—much of this plant expansion is made to fill Government orders.)

(3) We have had a great inflation of prices because of deficit spending, and

(4) The population has increased rapidly.

The following table shows GNP for 1939 and the first half of 1952, broken down into its component parts. The vast expansion in the share of Government can be clearly seen. Thus, while GNP increased  $3\frac{3}{4}$  times, the Government increased its take of goods and services, at current prices, about 5.8 times. Most of the increase was due to expansion of the National Government. During this period State and local government purchases increased only 2.9 times, whole national Government purchases increased 10.3 times.

[Billions of dollars]

Year	Gross national product	Government purchases of goods and services	Gross private investment	Personal consumption expenditures
1939-----	\$91. 3	\$13. 1	\$10. 8	\$67. 5
1952*-----	341. 3	76. 2	51. 0	214. 1

\*First half, annual rates.

Although gross national product is the figure most widely used, it is not a very good measure of changes in human well-being for, as we have seen, it includes purchases by Government and capital expansion, which latter has a longer-run pay-off.

A better measure of economic well-being is total "personal consumption expenditures." This figure reflects the durable and nondurable goods and services upon which consumers actually spend the bulk of their income.

But since rising living standards are measured

in terms of goods and services—and not by money expenditures alone—we must first take account of the fact that the dollar is worth much less than prewar and that the population has increased, in order to get a meaningful comparison of consumer expenditures today with those of earlier years.

The following table compares consumer spending for the first year following World War I, the last predepression year, the last year before World War II, and this year, both in current prices and in 1939 constant prices.

Year	Current prices (billion dollars)	1939 prices (billion dollars)	Population (millions)	Per capita (1939 price)
1919-----	53. 9	38. 7	104. 5	\$370
1929-----	78. 8	62. 2	121. 8	511
1939-----	67. 5	67. 5	130. 9	516
1952 <sup>1</sup> -----	214. 1	110. 1	153. 4	711

<sup>1</sup> First half, annual rates.

In the 10-year period, 1919 to 1929, per capita consumer outlays, adjusted for the rise in Government costs, in prices and population changes, increased from \$370 to \$511, or 38 percent. From 1929 to 1939 the increase was more modest, only 1 percent during the 10-year period. From 1939 to 1952 the increase was again 38 percent, but  $12\frac{1}{2}$  years were required for a rise equal to

that achieved in the decade 1919 to 1929. In 1939 we had 8 to 10 million unemployed, so that the recovery from this last date would be expected to be larger.

Thus, in spite of our great research and discovery and new investment, our improvement in economic well-being has been slowed down.

Economic progress and an expanding economy

rest primarily upon a free market economy and the incentives lying behind science and invention, improved technology, and rising investment per worker in the tools of production.

Taxes, direct and indirect, already absorb more than 20 percent of the income of the lowest income groups—\$1,000 income or less. Heavy taxation on business and the higher incomes, the chief sources for new investment, may already have reached a point where expansion, except in inflation-pressured periods, may be placed in jeopardy. For this reason, any additional funds to be applied to improved medical care should be raised in such a way that our expansion potential will not be further impaired.<sup>5</sup> Governmental expenditures should be restricted to those essential activities which only Government can carry out. This means primarily in the so-called public health field.<sup>6</sup>

This brings us back to finding ways and means of encouraging the individual and where needed the employer to develop ways and means of providing insurance programs financed on a basis mutually satisfactory to the parties concerned without any coercion, surrounded with safeguards to encourage efficiency and to eliminate waste. The enormous progress made by these insurance programs in the last decade, covering more groups, smaller groups, higher aged individuals, families and dependents, and more features such as hospital, medical care, surgery, and catastrophe, indicate what can be accomplished without coercion and compulsion, in the traditional American voluntary way.

Just as the foundations of "contentment" and "good health" rest on a complex of conditions and circumstances (not all of them material) which almost defy definition or even enumeration, so the basic essentials and criteria for economic progress and growth are so complicated that careful students of this problem hesitate to be dogmatic. Scientists probably know more about the cause and nature of biologic growth of an organism than social scientists know about the basis of economic growth.

Stagnation and even retrogression have overtaken whole societies and civilizations. Just ask

any group of historians or social scientists what is the one chief cause of the decline of the Roman Empire or the current reason for England's stagnation and dependency on outside aid, (perhaps enduring) and you will find no agreement. Who can put his finger unflinching on the turning point in the decline of Britain's economy?

We still have considerable momentum. It is hard to believe that the good sense of the American people will put further economic progress in jeopardy. But there are corrosive forces at work. Among the most potent of these is the appetite of the politician for office and acclaim through the sponsorship of bigger and more Government programs based on wealth and income redistribution—taking from the more productive, innovative and dynamic elements in favor of those who make a much inferior contribution to society.

H. L. Mencken, the sage from Baltimore, once said that if the politician found that he had cannibals among his constituents he would promise them missionaries for their Sunday dinner. Perhaps this is a bit harsh; but it does point to a problem. And this Health Commission would, in the long run, much prefer to make recommendations which would not accentuate the problem, but rather alleviate it.

Do we want politicians to seek office each election year by outpromising each other on what they will do to and for the medical personnel, and to and for the patients?

Do we want to throw the issues of medical care into politics every two years?

The Conservatives got into power in either Australia or New Zealand a few years ago by promising universal children's subsidies beginning with the first child.

Do we want further to over-load the national Government and the Congress, to undertake tasks which are far beyond them? Or, would it be better to have Congress do a few things and do them exceedingly well? We already are a second-rate power in some respects. We know of no way to win the war in Asia.

We ourselves, as well as people in other lands, often speculate on the "secret" of American well-being and growth.

Although not easy to delineate, one central core of that "secret" has been the converse of the Welfare State. By and large throughout our history we have adhered to the principles that a man's reward should be commensurate with his contribution to society as measured by the free

<sup>5</sup> For extensive discussion of this matter see: *Investment for Jobs*, Chamber of Commerce of the United States, Washington, D. C., 40 pages.

<sup>6</sup> The Chamber of Commerce of the United States has a long record in the promotion of better community health programs. In this connection see particularly the Proceedings of the Fourth National Conference on Social Security published in *American Economic Security*, June 1949, under title "Your Community and the Nation's Health Progress."



market—within the broad rules of the game established by ourselves through government and through common consent of all groups.

Without denying that some redistribution of income may have had some merits, Sumner H. Slichter of Harvard University has argued:

But the United States should not lose sight of the fact that the possibilities of increasing welfare by raising output far exceed the possibilities of increasing it by redistributing income. This country, with its unrivaled facilities for increasing both the output of goods and the effective demand for goods, can double the average per capita income in another 30 years or less. No scheme of redistributing income can expect to achieve the good that would be accomplished by doubling the income of everyone.<sup>7</sup>

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<sup>7</sup> See "Productivity: Still Going Up," *Atlantic Monthly*, July 1952. For more extended analysis of the threat to our progress and national security by excessive socialization of income as against rising productivity, see also: *The Welfare State and the State of Human Welfare*, Chamber of Commerce of the United States, 1951, 50 pages.

This potential growth itself will of course release or make available great increases in resources and energy for better medical care in its broadest sense—including better shelter, nutrition, etc.

We have made remarkable health progress by an enormously complex and diverse approach through general education, research, discovery, invention, saving and investment, group action, and better living.

In the past, emphasis has shifted from time to time. A dynamic approach to the health problem of tomorrow requires continuous sensitivity to the needs of tomorrow—without being shackled by the customs and standards of yesterday.

But within it all, we must not, we dare not, in the kind of hostile world in which we find ourselves, destroy the foundations that underlie the American success story. We can have an expanding economy if we are sensitive to its rationale and sanctions.

# ECONOMIC AND PUBLIC FINANCE ASPECTS OF THE MEDICAL CARE PROBLEM

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The first observation I wish to make concerns the economics of the professions and the medical profession in particular. We are told by many that our health planning should view medical care as a part of the American idea of free enterprise. A fundamental of free enterprise, or at least of competitive enterprise, is freedom of entry into all fields of endeavor. In the case of the professions, for obvious reasons, the rule must be qualified to specify freedom of entry for all reasonably qualified persons.

Barriers to the professions are of at least three types. The first two may be called natural barriers. One is the fact that ability is limited in supply; not everyone is qualified to become a competent physician. There is reason to believe that this barrier is not very serious and that the supply of reasonably able people is ample to man adequately, and perhaps even to crowd, the professions. If this were the only barrier it might well turn out that by the free operation of supply and demand the income of the professions would be little if any higher than that of skilled labor. The second barrier is the capital and forbearance required for long training and apprenticeship. It is a formidable barrier and the public interest might well require assistance to students who are unable or unwilling to meet the rigorous terms of initiation. It comes as a surprise to me to learn that this is not the main limiting factor in the present supply of doctors. Certainly first attention should go to the third barrier which is artificial and clearly indefensible on any criterion of good economics. There is ample evidence that many qualified people cannot obtain access to the facilities which constitute the exclusive channel by which the medical profession is recruited. The

major reason for this is that States and cities have been unable or unwilling or insufficiently pressed to provide these facilities.

The question, "How many doctors are enough?" is one that may be approached from many angles. The simplest and most direct is the free-enterprise approach which says that we have enough doctors when a freely recruited supply is equated with a freely manifest demand. We do not have enough doctors competitively speaking until all those qualified people who want to enter the profession are allowed to do so.

Why don't the States and cities provide adequate facilities to take care of those who would enter the medical profession? Several reasons suggest themselves. One is the competitive position in which the States and cities find themselves when they contemplate tax expansion. Another is the fact that there is leakage in all educational outlay: many educated in district X will ultimately settle in district Y. It is true that Federal money comes from the States and in a sense might as well have been taxed and expended there. But it is also true that Federal taxation and expenditure in the nature of the case are relieved of inhibitions that limit outlay by junior levels of government. In some cases (including the one here discussed, in my opinion) such outlays may be required in the public interest.

I conclude that the case for Federal aid for medical education is strong and convincing.

How much is enough in medical care? This question turns our attention from the supply side of the equation to the demand side. The answer of competitive economics is that enough is what the free people are able and willing to pay for at a price high enough to employ a freely recruited supply of services. If the people choose to spend half as much again on recreation and alcoholic beverages as they do upon medical care, that means simply that the sovereign people have chosen what is most important to them.



But economics is and always has been mixed with politics. In the world that we live in people determine demand in their sovereign capacity not only economically but politically. There is such a thing as social demand as distinguished from individual or private demand. It is quite possible that left to private determination the demand for medical services might reach 3 percent of the national income but that the amount might be boosted by social decision to 5 or 6 percent.

There are many factors that enter the social decision that do not apply in the case of individual decisions. One might decide that people should have more medical care whether they "want" it (economically speaking) or not, on the ground that it will improve youth's ability to defend the country; that it will raise the national output of goods and services; that it will reduce the load of dependency; that it constitutes the best way to dispose of the productivity achievements of the new technology.

In short, the social demand is a mixture of concern for one's own health and for other people's health. Now it will be said, of course, that all this amounts to is the desire on the part of some people to get something more out of other people's money. When governmental services are financed by a tax system based on any distribution principle that may be described as ability to pay, certainly the element of personal gain at other people's expense is involved. But this is not the whole story. In a social decision, an individual considers what other people should buy at his expense; what he and other people should be forced to buy out of their own expense for the social good; what other people should buy at still other people's expense. We make our social decisions largely through the mechanism of government, which in a democracy converts (however roughly) public opinion into social action. Some like to think that growing governmental services are in some way loaded onto the backs of an unwilling people by a tyranny of self-seeking bureaucrats. The truth is that a public which is free to tax itself may incur higher obligations than would a dictator.

The difference between a social and a private decision about consumption can be made clearer perhaps with an illustration or two. A heavy drinker may vote for a liquor tax on the ground that he thinks cheap whiskey would be a bad thing for the country or that socially speaking we should spend more on education and less on alcoholic

beverages. Free public education is supported on the ground that people should consume more of this service than they "want" using that word in the sense of able and willing to pay for. This is what is meant, I take it, when medical care is described as an "unwanted necessity."

Now there is still the collateral question in this area which asks, "How much medical care ought the people to want, privately and socially?" This is another way of posing the much mooted question: what percentage of the national income should the people spend on medical care at the expense of private or social expenditure on food, housing and education? I say "at the expense of" because it is to some extent true that what we spend for any one of these purposes is not available for the others. One can avoid such questions by saying that they are a matter of ultimate values to be decided by voting both at the market place and in the polling booth. But this is not an adequate reply, for people are entitled to guidance on such matters. Nor can one answer with the contention that life and health are obviously supreme values. Life and health depend on housing and food and education as well as upon medical care. (Parenthetically, I may say that I think there is some danger in the common error of identifying health with medical care. It might be a wholesome trend were some of the preoccupation with medical care transferred to, let us say, nutrition.)

But when this is said, I think it is also true that people tend to neglect their health to a degree beyond that which can be associated with food and shelter. For every hypochondriac there are probably a half dozen hypochondriacs-in-reverse. People neglect medical attention and particularly dental attention for several obvious reasons:

- (1) They can postpone this item of expense, it involves an element of futurity in somewhat the same way that saving does
- (2) It is frequently associated with painful experience at the doctor's and more particularly the dentist's office
- (3) It not infrequently involves an unanticipated and an unusual strain on the family budget both as to time and money; and
- (4) It may involve the discovery of bad information which one feels happier to postpone

Who hasn't known someone who should have seen a doctor long ago and who finds a dozen "reasons" for not doing so?

It seems certain that we should spend for medical care and public health greatly more than would be demanded were people to pay for all of it directly out of their own pockets. I am doubtful that we should spend as much as would be expended if all services were entirely free of any association between demand and payment. The answer, I think, lies somewhere between these extremes.

The Government has been playing a steadily increasing part in promoting and applying the impressive advances of American medicine. The question of whether the Government should participate in health activities does not present itself; the question is to what degree it shall extend its participation and in what areas and in what way. As previously indicated, it is mainly through Government that social demand supplements economic demand. There are many bases for the general prediction that Government will expand in this direction at a fairly rapid rate. Among the more interesting is the fact that welfare matters, including health, have on a considerable scale become the subject of collective bargaining. These industrial agreements constantly raise the question as to whether the benefits extended to some should not be available to all and whether a public program would not produce a more rational and economic project.

A part of this trend is the general acceptance of the view that the business of Government includes the protection of the people against the hazards of an industrial society. The trend can be criticized on the score that as the Government does more and more for individuals, their initiative and sense of responsibility are being weakened. Perhaps partial answer lies in the proposition that when people solve their problems through Government they cannot do so without the exercise of some initiative. But there is a more fundamental answer. The preserve-human-initiative argument is closely akin to the view that the more one has to overcome in life the stronger and better character he is likely to forge. If that were true we should have to condemn all of the social dividends of economic progress and go back to the old days when man had to cope with nature in the raw. A per capita income of over \$1,400 substantially reduces insecurity for everybody, and indeed it is the best insecurity antidote that we have. What

about the moral fiber of those who are so fortunate in life that the fundamental insecurities never touch them? We can hardly operate on the principle that we have to make or leave life hard for people in order to sustain their characters. The elasticity of human wants takes care to provide new incentives and new challenges to resourcefulness as old ones are satiated.

In the remaining time at my disposal I want to suggest a few of the directions which, in my opinion, increased outlays for health should take. I should say in the interest of frankness that I am sympathetic to the idea of insurance as a way of paying medical bills and to the idea of including the hazard of illness in our social security system. But I am also highly apprehensive of so revolutionary a change all in one step and largely controlled from Washington. My reservations can be summarized as follows:

(1) Inaugurated at once, or even with a so-called tooling up period, the change could hardly fail to swamp utterly our existing medical and dental facilities.

(2) The danger of malingering in such a system is substantial; the sudden transition from very expensive to entirely free medical care may be described as "too mighty an excitement for the mind of man to bear." Man's propensities toward hypochondriacism are almost as pronounced and perhaps akin to his weakness for alcoholic liquors. If all doctors felt a keen responsibility toward policing the program, this tendency might be held within bounds. But such cooperation is not manifestly available. Moreover, it is a good principle of public finance that some direct charge for public services has a salutary effect on wasteful consumption generally.

(3) Extending social security to medical care, in the opinion of most doctors, would revolutionize the medical profession—and their intuition on this point contains a large element of truth. At any rate, it seems quite unwise to attempt a program which so intimately involves the whole practice of medicine without a large measure of favorable sentiment among the doctors. Their cooperation is essential to the success of the program and our medical profession is now doing its job well enough at least so that we do have plenty to lose by its loss of morale.

(4) A nationwide system of health insurance inaugurated at one stroke is an extremely ambitious administrative undertaking. The task



of allocating funds to specific localities is one that could cause much difficulty and embarrassment.

(5) There is strong support for the view that many people with average incomes and average need for medical care should continue to pay their medical bills as at present. It is catastrophic illness, however that term may be defined, which upsets people's budgets. There is also well-founded support for the view that the developing interest in voluntary insurance should not be discouraged.

(6) Our social security system is still limited as to coverage of the population, and the inclusion of medical care could hardly fail to leave out many whose need for medical care is most acute.

It should be our objective to devise a scheme of compulsory insurance that meets these difficulties. Perhaps this could be built around our personal net income tax rather than our payroll tax. The former does or could with relatively little difficulty be extended to include everybody either as a recipient of income or a dependent. It applies to persons as such and as a base for medical care insurance would recognize that illness is much more a personal than an industrial hazard.

To be specific, let us assume that we were to levy a universal 2 percent income tax to provide a fund for the compensation of catastrophic illness. Much of this, of course, could be collected at the source. Catastrophic illness could be defined in terms of a ratio of medical costs to net income and in terms of the size of medical bills as such. Compensation could be so devised as always to leave the taxpayer a substantial equity in the marginal dollar of medical expense; that is, he would always have to contemplate paying part of any new bill. This is important not only to avoid waste but also to leave the medical profession entirely outside the program. The scheme would be between the Government and the taxpayer entirely and the doctors could practice and collect precisely as they do at present. Patients would be debited and credited only in their income tax accounting with the Government. A minimum medical cost could be excluded from compensation entirely. For instance, the first \$25 of bills incurred in any one year might be entirely at the taxpayer's expense.

The tax should be based on "adjusted gross income"; that is, on net income as such before the

allowances for dependents are credited. The medical care allowance or credit could of course supersede the present deduction for the cost of medical care. (This deduction, by the way, means that 22 cents out of every dollar of deductible medical cost is borne by the Government. Its weakness lies in the fact that it is of no value to the people who pay no tax.)

The great merit of the type of insurance here suggested is that it is infinitely flexible. The element of subsidy, degree of general versus specific responsibility, and the definition of catastrophic illness are matters that can be adjusted in a great variety of patterns. For purpose of illustration only, I submit one possible pattern.

If a family incurs medical bills that run to \$800 and these constitute more than 10 percent but less than 100 percent of its net income, its obligations would be computed as follows: on the first \$25, the family would pay without assistance; on \$275, it would pay one half or \$137.50; on the next \$500, it would pay 30 percent or \$150. Thus, its direct share of its total bill would be \$312.50. The remainder would be covered by its income tax.

The most substantial objection to a proposal of this sort is that it would embarrass, if not eliminate, the large present developments in private insurance. But need it do so? Various possibilities suggest themselves, among them the following: Persons able and willing to obtain satisfactory coverage privately might be allowed to contract themselves outside the system with a minimum contribution to the public fund to cover their responsibilities to those less able to pay.

For a highly modest suggestion, I offer the proposal that the present medical-care deduction in the Federal tax should be greatly liberalized. (The deduction is an offset against income and is, of course, a less high-powered instrument than the credit above proposed). There is no adequate rational ground for the ceiling in the present Federal law, and the lower limit might well be reduced from 5 percent of adjusted gross income to 2 percent.

A second suggestion for the expansion of public support for medical care (failing acceptance of the first suggestion) involves the expansion of Federal grants-in-aid in certain selected areas. The grant-in-aid device as an instrument of public finance has some limitations. Among them are the possibilities of distortion in local outlays and the weakening of inhibitions in public expenditure.

But they are exceedingly well adapted nevertheless, to accomplish certain public purposes and to share responsibility in areas of mutual State and Federal interests.

Aid for public health work, maternity and child care, and hospital construction are already established. Aid to medical schools has been discussed and recommended. The further area that I think might have high priority is medical care for children and youth at elementary and secondary school age levels.

The case for health expenditures for children is especially strong for at least four reasons:

(1) Children are in a sense wards of the State and the latter should be jealous of their welfare on the score of equality of opportunity. Equality of opportunity (as distinguished from equality of economic rewards) is a universally accepted and a thoroughly conservative and an American principle. It may well be that older people are responsible for their own limitations but every child has a moral and economic claim to start the race of life without avoidable handicaps and at the same tape line as his competitor.

(2) The health of youth is of special importance as a military matter. Whatever disagreement there may be concerning draft rejection data, there can be no doubt that better care of American youth is a military factor of great significance.

(3) In many parts of the world children's allowances have been inaugurated. These are granted partly in special recognition of the fact that a family which rears one or more offspring

assumes responsibilities and carries an economic load that society at large should share. Services may constitute a better form of allowance than a cash payment.

(4) School health services throughout the Nation have been extensively inaugurated, but they differ widely in their degree and in their effectiveness.

I do not have the background to indicate in detail what should be the specifications for such an aid. It should be flexible enough to include a variety of programs whether or not associated with schools. As to the latter it should be directed in part to mitigate the major weakness associated with school physical examinations—the inadequate follow-up of such examinations. A point of controversy here is the question of whether such programs should be extended to include curative measures as well as diagnosis. Congressional aid legislation could leave that issue to the States with the specification that Federal money could be used for treatment as well as diagnosis. It will be objected that to pay the medical bills for the care of children whose parents are well able to afford such expense is unnecessary and socialistic. But according to the view here taken, it only recognizes the differential burdens among families and the social obligation to children.

In conclusion, I may reemphasize the point explicit or implicit in all my remarks: the extension of Government into the field of medical care and public health is inevitable; the problem is to guide the extension into the most promising channels.



## II

# Tables and Charts

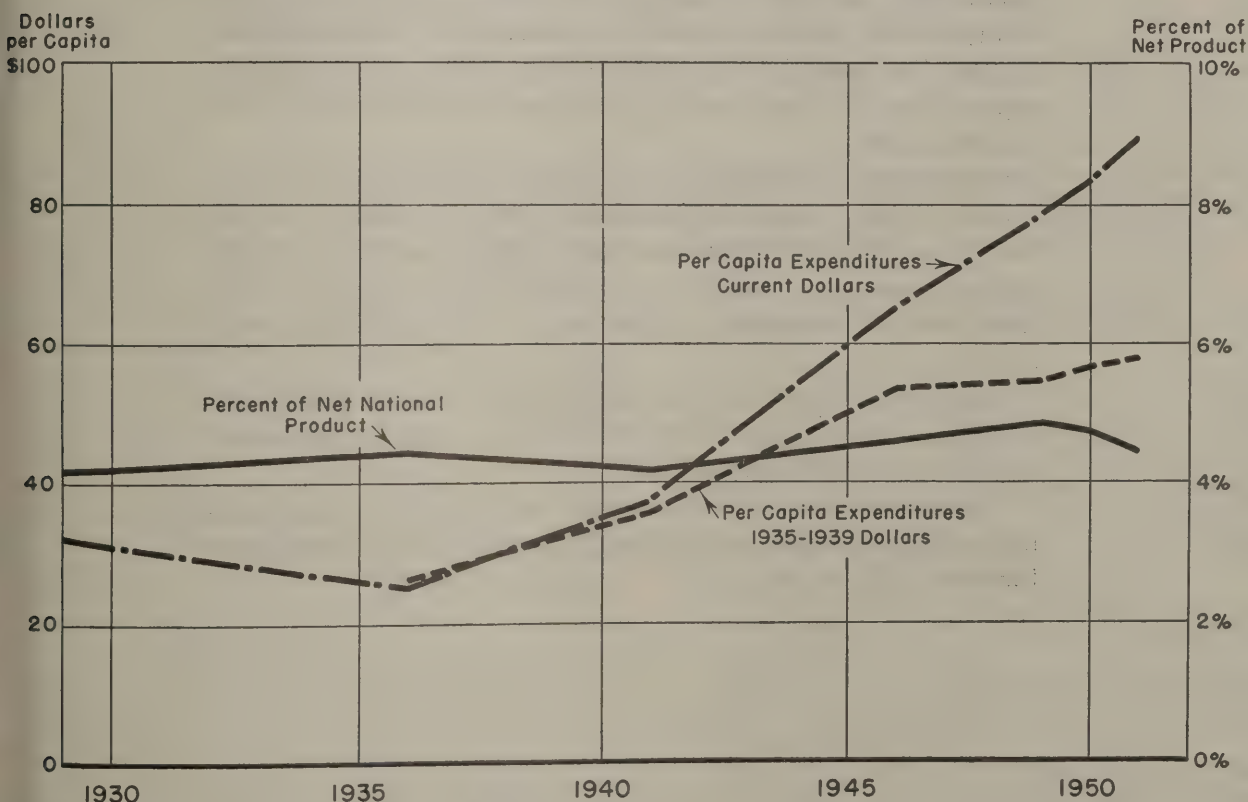




# 1. TOTAL EXPENDITURES

Per capita expenditures for civilian health increased from a low of \$26 in 1936 to \$89 in 1951. Although price increases account for a large part of the higher expenditures, even after adjustment for price changes, per capita expenditures for civilian health showed an increase of over 120 percent during the fifteen year period. Expenditures as a percent of the net national product have changed very little.

Chart 1A.—Estimated per capita expenditures for civilian health, current dollars and 1939 dollars, and the percent of the net national product devoted to health, 1929-51.



Source: See Table 1.1

The estimated total of \$13.6 billion spent for health of civilians in 1951 contrasts with an estimated \$3.9 billion in 1929. These sums represented \$89 per capita for the civilian population in 1951 and \$32 per capita in 1929. The percent of our net national product spent for civilian health services and facilities has not increased appreciably over this period of time. In 1929 approximately 4.1 percent of the country's net product was devoted to health compared to 4.4 percent in 1951.

Consumers of medical services met by direct disbursements 65.5 percent of the total in 1951, a proportion that has gradually declined from 76.5 percent in 1929 and 1936. During the same time period, 1929 to 1951, the per capita expenditures by consumers have increased from about \$25 to almost \$60.

Government (Federal, State, and local) expenditures for civilian health, including medical care of veterans, public health and maternal and child health programs, and research expenditures, but excluding hospital construction, have risen from 10.4 percent of the total in 1929 to 19.6 percent in 1951.

Expenditures for hospital construction, only a small proportion of health expenditures in 1941 and 1946, represented 6.8 percent of the total in 1951.

Expenditures by philanthropy and industry have remained fairly stable proportions of total health expenditures for the years shown.



## TOTAL EXPENDITURES

Table 1.1.—Estimated total civilian expenditures for health and medical services and facilities, by source of funds, selected years, 1929–51

(Millions of dollars)

Source of Funds	1929	1936	1941	1946	1949	1950	1951
Total expenditures-----	3, 924	3, 299	4, 844	9, 050	11, 654	12, 572	13, 607
Consumer <sup>1</sup> -----	3, 003	2, 523	3, 376	6, 117	7, 774	8, 329	8, 918
Government (excluding hospital construction) <sup>2</sup> -----	409	442	<sup>3</sup> 850	1, 938	2, 276	2, 423	2, 672
Philanthropy <sup>4</sup> -----	82	43	<sup>3</sup> 230	300	<sup>3</sup> 365	<sup>3</sup> 370	<sup>3</sup> 400
Industry <sup>4</sup> -----	<sup>5</sup> 225	<sup>5</sup> 200	<sup>5</sup> 300	<sup>5</sup> 525	<sup>5</sup> 560	<sup>5</sup> 630	<sup>5</sup> 700
Hospital construction, total-----	205	91	88	170	679	820	917
Publicly owned facilities-----	101	74	42	85	477	476	498
Privately owned facilities <sup>6</sup> -----	104	17	46	85	202	344	419
PERCENTAGE DISTRIBUTION							
Total expenditures-----	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
Consumer-----	76. 5	76. 5	69. 7	67. 6	66. 7	66. 3	65. 5
Government (excluding hospital construction)-----	10. 4	13. 4	17. 5	21. 4	19. 5	19. 3	19. 6
Philanthropy-----	2. 1	1. 3	4. 8	3. 3	3. 2	2. 9	2. 9
Industry-----	5. 8	6. 1	6. 2	5. 8	4. 8	5. 0	5. 2
Hospital construction, total-----	5. 2	2. 7	1. 8	1. 9	5. 8	6. 5	6. 8
Publicly owned facilities-----	2. 6	2. 2	. 9	. 9	4. 1	3. 8	3. 7
Privately owned facilities-----	2. 6	. 5	. 9	. 9	1. 7	2. 7	3. 1
Net national product (millions of dollars)-----	95, 012	74, 799	117, 123	198, 947	238, 858	262, 649	304, 606
Percent of net national product devoted to health-----	4. 1	4. 4	4. 1	4. 5	4. 9	4. 8	4. 4

<sup>1</sup> Based on incomes received by personnel and facilities providing medical services (including hospitals, physicians, dentists and nurses, drug preparations and sundries, net payments for prepayment insurance, etc.); excludes net payments for mutual accident and sick benefit associations. Excludes physicians' income from government and welfare agencies, workmen's compensation cases, life insurance examination and other business organizations. Also excludes private payments to public hospitals. Includes net payments for accident and health insurance. In recent years as much as half of this item may relate to disability rather than medical care protection; it was a larger proportion in earlier years; it is offset by other medical expenditures not known for earlier years such as payment for care in public hospitals, income of physicians in salaried practice in prepayment organizations and by exclusion of all net payments for mutual accident and sick benefit associations, some part of which relates to medical care protection. Consumer expenditures in recent years are as follows if these adjustments are taken into account: 1949, \$7,627 million; 1950, \$8,248 million; and 1951, \$8,816 million.

<sup>2</sup> See table 2.1 for items included.

<sup>3</sup> Estimated.

<sup>4</sup> Expenditure estimates for these items are understatement since some expenditures by philanthropy and industry are included under estimates for consumer and hospital construction expenditures.

<sup>5</sup> Estimated. Includes that part of the total expenditures for workmen's compensation cases that relate to hospital and medical services, in-plant health services, part of employer contributions to prepaid health insurance not included elsewhere and industrial expenditures for medical research.

<sup>6</sup> Part of the cost of constructing the privately owned facilities is met through Federal aid (Hill-Burton Hospital Construction Program); the amount of Federal aid represented would not be in excess of \$50 million.

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## 2. GOVERNMENTAL EXPENDITURES

In 1950-51, Federal, State, and local governments spent \$3.2 billion for civilian health services, including new hospital construction and medical research.<sup>1</sup>

The Federal share of these governmental expenditures for civilian health services and research has accounted for about one-third of the total for each of the past five fiscal years. That share would be less if school health, medical expenditures for recipients of public aid, and education for the health professions in State and local universities and colleges were included in the total.

The largest single item of these Federal, State, and local health expenditures in each of the five years is the amount spent for hospital and medical care, an amount which has consistently accounted for more than half the total (nearly \$1.8<sup>2</sup> billion of the \$3.2 billion in 1950-51).

The next largest single item in the total governmental health expenditures for each year shown in the table is for community health services (excluding maternal and child health care and medical rehabilitation programs) which accounted for about one-fourth of the \$3.2 billion spent in 1950-51. The Federal share in this item has declined over the period from one-eighth to less than one-twelfth.

Expenditures for new hospital construction, the third largest single item in the total in 1950-51 (nearly \$572 million) have risen from less than one-twentieth of the total in 1946-47 to more than one-sixth, largely because of the Federal grant provisions of the Hill-Burton Act. The Federal share of this total was about one-third in 1948-49; it was nearly half in 1950-51. (It should be noted that some of the Hill-Burton funds were matched by private funds rather than by State or local governmental funds.)

The fourth largest item in governmental expenditures for civilian health in 1950-51 is that for research, which represents less than 2 percent of the total. The \$2.0 million in State and local expenditures for each of the five years represents estimates of amounts appropriated for research purposes.

<sup>1</sup> This total excludes health services and research expenditures by the military establishment, research expenditures of the Atomic Energy Commission, and international health activities. It also excludes medical expenditures under public aid programs, school health programs, and workmen's compensation, as well as expenditures for academic education in the health professions.

<sup>2</sup> Includes Federal expenditures for medical care of veterans.



## GOVERNMENTAL EXPENDITURES

Table 2.1.—Expenditures by Federal, State and local governments for civilian health, by type of program, fiscal years 1947-51

[Millions of dollars]

Type of program	1946-47			1947-48			1948-49		
	Total	Federal	State and local	Total	Federal	State and local	Total	Federal	State and local
Total <sup>1</sup> -----	1, 717. 1	678. 4	1, 038. 7	2, 061. 5	716. 7	1, 344. 8	2, 575. 6	828. 0	1, 747. 6
Hospital and medical care <sup>2</sup> -----	1, 076. 0	530. 9	545. 1	1, 324. 6	547. 2	777. 4	1, 589. 1	603. 1	986. 0
New hospital construction <sup>3</sup> -----	84. 8	28. 8	56. 0	123. 1	55. 1	68. 0	299. 4	94. 4	205. 0
Community and related health services <sup>4</sup> -----	488. 7	63. 7	425. 0	551. 5	66. 6	484. 4	613. 3	74. 9	538. 4
Maternal and child health care <sup>5</sup> -----	51. 9	43. 7	8. 2	34. 1	25. 1	9. 0	30. 8	20. 5	10. 3
Medical rehabilitation <sup>6</sup> -----	3. 5	1. 8	1. 7	5. 2	2. 6	2. 6	6. 2	3. 1	3. 1
Medical and public health research <sup>7</sup> -----	10. 1	8. 1	2. 0	19. 8	17. 8	2. 0	31. 3	29. 3	2. 0
Health personnel, in-service training <sup>8</sup> -----	2. 1	1. 4	. 7	3. 7	2. 3	1. 4	5. 5	2. 7	2. 8

Type of program	1940-50			1950-51		
	Total	Federal	State and local	Total	Federal	State and local
Total <sup>1</sup> -----	2, 945. 0	1, 015. 8	1, 929. 2	3, 243. 8	1, 046. 9	2, 179. 0
Hospital and medical care <sup>2</sup> -----	1, 657. 6	644. 0	1, 013. 6	1, 763. 3	642. 7	1, 120. 6
New Hospital construction <sup>3</sup> -----	521. 7	219. 7	302. 0	571. 9	254. 9	317. 0
Community and related health services <sup>4</sup> -----	661. 7	65. 8	595. 9	810. 4	61. 2	740. 2
Maternal and child health care <sup>5</sup> -----	28. 8	19. 1	9. 7	34. 4	23. 1	11. 3
Medical rehabilitation <sup>6</sup> -----	6. 4	3. 2	3. 2	6. 5	3. 3	3. 3
Medical and public health research <sup>7</sup> -----	60. 6	58. 6	2. 0	58. 7	56. 7	2. 0
Health personnel, in-service training <sup>8</sup> -----	8. 2	5. 4	2. 8	7. 6	5. 0	2. 6

<sup>1</sup> Excludes all medical expenditures of the military and the Atomic Energy Commission, medical services under the public aid programs (\$225 million in 1951) and medical care provided to Workman's Compensation cases (\$210 million in 1951). Further excludes expenditures of State agencies for the School Lunch program which are included in tables 2.4, 2.5, and 2.6.

<sup>2</sup> Includes hospital and outpatient care in public institutions and expenditures for maintenance and improvement of existing facilities. Excludes expenditures for domiciliary care by the Veterans Administration and institutions for chronic care (other than mental and tuberculosis).

<sup>3</sup> Federal expenditures include cost of hospital planning and surveys as well as grants for construction; State and local expenditures represent new construction only.

<sup>4</sup> Federal expenditures represent those made by the U. S. Public Health Service (except for international health activities, the National Institutes of Health, medical and hospital care and hospital construction and professional education and training) and by the Food and Drug Administration; State and local expenditures represent all community health and sanitation expenditures by public agencies except those in connection with schools and public welfare and those classified elsewhere as health and medical services.

<sup>5</sup> Federal expenditures are for the Maternal and Child Health program, the program for crippled children, and the wartime Emergency Maternity and Infant Care program; State and local expenditures represent required

matching of Federal grants under the Maternal and Child Health program and under the program for crippled children.

<sup>6</sup> Expenditures for medical care and services under the Vocational Rehabilitation Act.

<sup>7</sup> Represents all expenditures (except for education and training) of the National Institutes of Health, U. S. Public Health Service, and estimated amounts appropriated by State and local governments for medical research.

<sup>8</sup> Represents in-service training of the Children's Bureau and of the National Institutes of Health, and other units of the U. S. Public Health Service. Excludes professional education and training of nurses, physicians, and other medical personnel and expenditures in State supported medical schools.

## SOURCES:

Social Security Administration. Annual Statistical Supplement, 1949. Social Security Bulletin, vol. 13, No. 9, p. 29, table 6 (Washington, D. C., September 1950).

Social Security Administration. Annual Statistical Supplement, 1950. Social Security Bulletin, vol. 14, no. 9, p. 25, table 5 (Washington, D. C., September 1951).

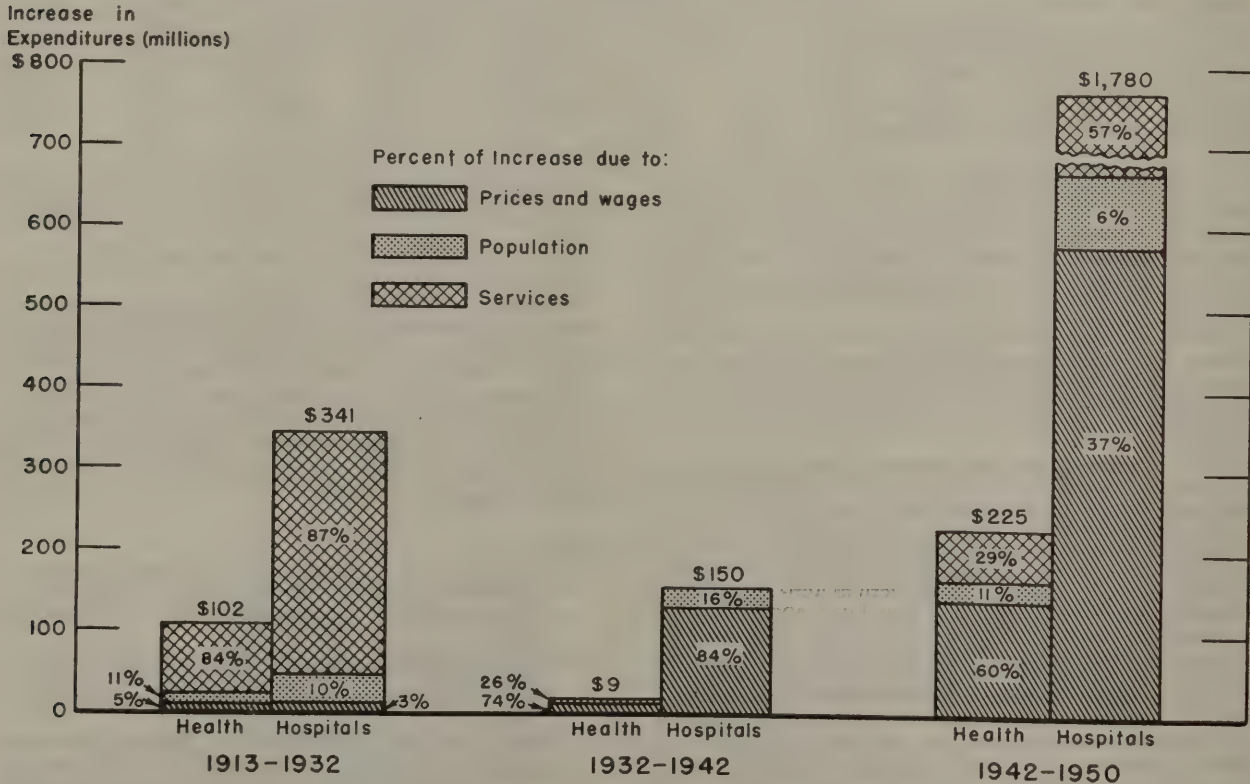
Social Security Administration. Annual Statistical Supplement, 1951. Social Security Bulletin, vol. 15, no. 9, p. 29, table 6 (Washington, D. C., September 1952).

Trends in governmental expenditures for current operations and capital costs for health and hospitals are directly affected by several factors, including prices the Government must pay, population changes, and changes in the scope of services.

From 1913 to 1932 over 85 percent of the increase in Federal, State, and local expenditures for health and hospitals reflected increases in service. Since 1932, for all levels of government combined, expansion of services has accounted for half the dollar increase in total expenditures. During the 1930's, the amount of health and hospital "service" decreased as price and population increases negated dollar increases.

Each of the three levels of government accounted for roughly one third of total expenditures in 1950. Federal expenditures for Federal hospitals represented 38 percent of all hospital expenditures and further Federal funds (grants to the States for hospital construction) are included in the State and local hospital expenditures. Expenditures for health services are far larger at the local level than at the Federal level of government.

Chart 2A.—Dollar increase in governmental expenditures for health and hospitals and the percent of the increase arising from higher prices, a growing population and expansion of services, 1913–50.



Source: See Table 2.2



Table 2.2.—Analysis of factors in increase of governmental expenditures for health and hospitals, 1913 to 1950

Level of government	Amount of expenditure <sup>1</sup> (in millions of dollars)		Increase in expenditure (minus indicates decrease)	Percent distribution of factors in expenditure <sup>2</sup> change (100 percent equals net change)		
	Year	Year		Prices	Population	Services
Federal-State-local:	1913	1932	1913-32			
Health.....	27	129	102	5	11	84
Hospitals.....	78	419	341	3	10	87
Federal:						
Health.....	3	8	5	50	25	25
Hospitals.....	5	86	81	8	2	90
State:						
Health.....	7	22	15		18	82
Hospitals.....	36	191	155		9	91
Local:						
Health.....	17	99	82	3	8	89
Hospitals.....	37	142	105	7	16	77
Federal-State-local:	1932	1942	1932-42			
Health.....	129	138	9	74	26	
Hospitals.....	419	569	150	84	16	
Federal:						
Health.....	8	12	4	25	25	50
Hospitals.....	86	90	4	78	22	
State:						
Health.....	22	55	33	18	7	75
Hospitals.....	191	245	54	85	15	
Local:						
Health.....	99	71	-28			
Hospitals.....	142	234	92	78	13	9
Federal-State-local:	1942	1950	1942-50			
Health.....	138	363	225	<sup>1</sup> 60	<sup>1</sup> 11	<sup>1</sup> 29
Hospitals.....	569	2, 349	1, 780	37	6	57
Federal:						
Health.....	12	84	72	25	2	73
Hospitals.....	90	904	814	17	2	81
State:						
Health.....	55	129	74	66	13	21
Hospitals.....	245	696	451	53	10	37
Local:						
Health.....	71	150	79	76	13	11
Hospitals.....	234	749	515	48	9	43

<sup>1</sup> Compiled from records and reports of the Census Bureau and classified according to standard Census categories for reporting of governmental finances. Hospital expenditures represent hospital construction and upkeep as well as hospital care. Health expenditures include public health services, medical care, medical research and training. Aid given to other governments is excluded from the direct expenditures of the government giving the aid. The definitions of the Census Bureau differ in certain respects from those used by other sources reporting expenditures in the health field, resulting in differences from total amounts shown in other tables. Expenditures for the Armed Forces, for recipients of public assistance and for school health activities are among the items excluded from the above expenditures.

<sup>2</sup> To measure the influence of price changes, the expenditures of successive years were broken down between purchases of personal services; supplies, materials, and contractual services, construction; equipment; and other components. For each component an index of price change was developed.

Even though expenditures for health services and hos-

pital facilities are presumably quite directly related to the size of the population served, it cannot be assumed that any change in population calls for a proportionate change in health and hospital expenditures. However, there is no other basis for measuring readily the influence of population growth on government expenditures. Hence, for the purpose of this analysis, amounts proportionate to the increase in population have been assumed to measure the extent to which increased expenditures merely reflect population growth.

Using the price indexes and population changes described above, the amount it would have cost to provide services furnished in the later year at price levels of the earlier year was computed. This was compared with the actual amount spent in the earlier year. The difference, up or down, represents the amount of change in government expenditures attributable to level-of-service changes alone.

SOURCE: Based on material prepared by Robert F. Drury for the forthcoming revision of the volume, *America's Needs and Resources*, Twentieth Century Fund (New York City, N. Y.).

The Federal budget for 1952-53 represents an estimated outlay of \$85.4 billion. Expenditures for civilian health services are budgeted at about \$1.1 billion, of which \$800 million is allocated to medical care of veterans and construction of veterans' hospitals.

The remaining Federal health expenditures for services to civilians, aggregating an estimated \$341 million, include estimated grants to States for public health hospital construction, and for maternal and child health, as well as estimated expenditures for Public Health Service and related hospitals, and for medical care of Indians, Federal prisoners, and others entitled to medical care from the Public Health Service.

Table 2.3.—Estimated Federal budget expenditures, fiscal year 1953

Functions	Estimated budget expenditures		Functions	Estimated budget expenditures	
	Amount (millions of dollars)	Percent		Amount (millions of dollars)	Percent
Total.....	85, 444	100. 0	Health services.....	1, 143	1. 3
Military.....	51, 163	59. 9	Veterans medical care.....	695	. 8
International.....	10, 844	12. 7	Veterans hospital construction.....	107	. 1
Interest.....	6, 255	7. 3	Other civilian health services <sup>1</sup> .....	341	. 4
Veterans, except health.....	3, 395	4. 0	All other budget expenditures.....	12, 644	14. 8

<sup>1</sup>Total estimated expenditures of the Public Health Service (including grants to the States for hospital construction), Saint Elizabeths and Freedmen's Hospitals, medical care of Indians and Federal prisoners and grants for maternal and child health and crippled children. Defined by the Bureau of the Budget as promotion of

public health, the inclusions differ somewhat from those in table 2.1.

SOURCE: Bureau of the Budget. The Budget of the United States Government for the fiscal year ending June 30, 1953, pp. M12 and M63 (Washington, D. C., 1952).

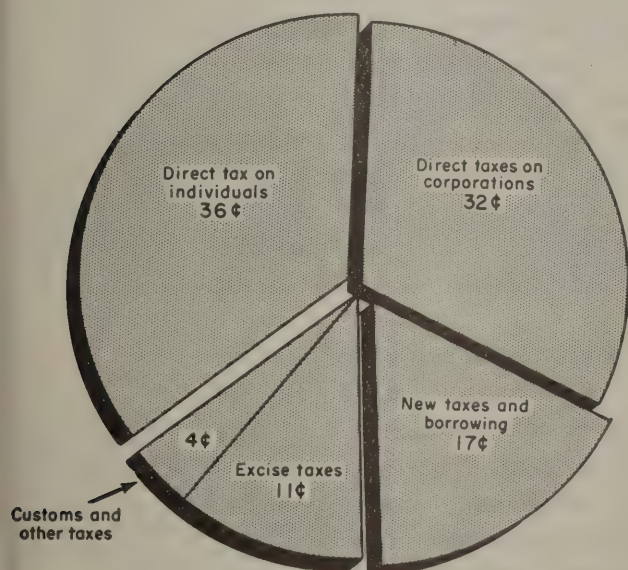


One penny out of each budget dollar of the Federal government is to be spent for civilian health activities in the fiscal year 1952-53. Most of this estimated Federal outlay for civilian health services will go for medical and hospital services for veterans.

Military services, including the health services provided for members of the armed forces, will take an estimated 60 cents of each budget dollar of the Federal government. Benefits for veterans other than their health and hospital services will take an additional four cents.

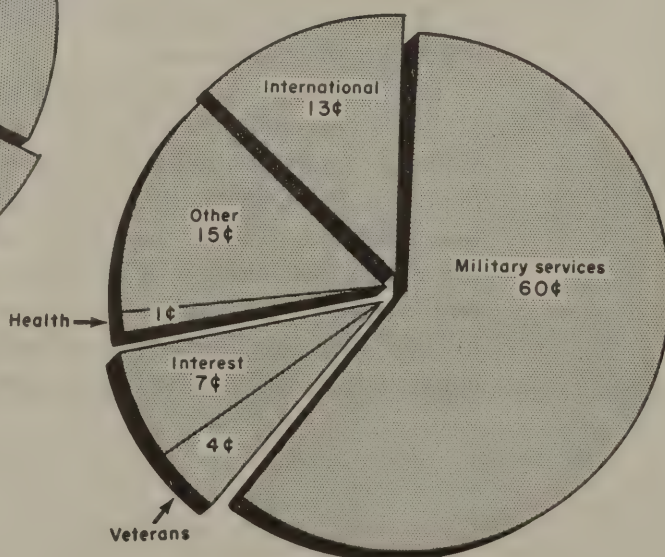
Chart 2B.—The budget dollar of the Federal Government: where it comes from and where it will go, fiscal year 1953

### Where it comes from...



NOTE: Expenditures by the Veterans Administration for medical and hospital services are included in the 1¢ shown for health.

### Where it will go...



The Veterans Administration's health activities in the fiscal year 1949-50 accounted for more than half (52.9 percent) of known Federal obligations incurred for health purposes in the year. Health expenditures of the Department of Defense (insofar as they are available) and of the Federal Security Agency each represented about one-fifth of the total.

The Federal Security Agency was the main administrative agency for Federal grants-in-aid to States for health purposes in 1949-50 (96 percent of the total). That agency also carried the major responsibility for Federal expenditures for medical research (70 percent of the Federal obligations for that purpose). The Atomic Energy Commission was responsible for 13 percent of the Federal medical research total and the Department of Defense for about 11 percent.

Federal expenditures for medical and health training were shared about equally by the Department of Defense and Federal Security Agency, each bearing a little less than half of the total. The Veterans Administration bore about 6 percent of the expense.

The Veterans Administration was responsible for all but about 3 percent of the Federal expenses for construction of Federal medical facilities and nearly two-thirds of the expenses for in-patient and out-patient services to Federal beneficiaries. The Department of Defense was responsible for nearly 60 percent of all Federal expenses for health of employees. The small share of the Federal Security Agency in these fields excludes amounts granted to States for hospital construction and public health activities.



Table 2.4.—Obligations by Federal agencies for health activities, fiscal year 1950

Agency	Total obligations <sup>1</sup>	Type of obligation							
		State aid	Re-search	Train-ing	Regu-latory	Medical care		Em- ployee health	All other
						Con- struc- tion	Inpa- tient and out- patient services		
AMOUNT (THOUSANDS OF DOLLARS)									
Total-----	1, 534, 729	211, 519	89, 457	19, 981	26, 475	219, 176	909, 227	4, 081	54, 813
Veterans Administration-----	812, 434	3, 355	3, 719	1, 160	-----	212, 355	580, 198	174	11, 473
Department of Defense-----	331, 005	-----	9, 751	9, 283	1, 933	-----	276, 280	2, 409	31, 349
Federal Security Agency-----	330, 924	203, 800	62, 612	9, 249	9, 306	179	39, 842	156	5, 780
Department of Agriculture-----	18, 525	3, 755	1, 374	-----	13, 322	-----	-----	44	30
Department of the Interior-----	16, 967	570	65	-----	-----	4, 335	9, 498	87	2, 412
Atomic Energy Commission-----	15, 770	-----	11, 831	289	-----	2, 307	1, 016	-----	327
All other-----	9, 104	39	105	-----	1, 914	-----	2, 393	1, 211	3, 442
PERCENTAGE BY TYPE OF OBLIGATION									
Total-----	100. 0	13. 8	5. 8	1. 3	1. 7	14. 3	59. 2	0. 3	3. 6
Veterans Administration-----	100. 0	. 4	. 5	. 2	-----	26. 1	71. 4	( <sup>2</sup> )	1. 4
Department of Defense-----	100. 0	-----	2. 9	2. 8	. 6	-----	83. 5	. 7	9. 5
Federal Security Agency-----	100. 0	61. 6	18. 9	2. 8	2. 8	. 2	12. 0	( <sup>2</sup> )	1. 7
Department of Agriculture-----	100. 0	20. 3	7. 4	-----	71. 9	-----	-----	. 2	. 2
Department of the Interior-----	100. 0	3. 4	. 4	-----	-----	25. 5	56. 0	. 5	14. 2
Atomic Energy Commission-----	100. 0	-----	75. 0	1. 9	-----	14. 6	6. 4	-----	2. 1
All other-----	100. 0	. 4	1. 2	-----	21. 0	-----	26. 3	13. 3	37. 8
PERCENTAGE BY AGENCY									
Total-----	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
Veterans Administration-----	52. 9	1. 6	4. 2	5. 8	-----	96. 8	63. 8	4. 3	20. 9
Department of Defense-----	21. 6	-----	10. 9	46. 4	7. 3	-----	30. 4	59. 0	57. 2
Federal Security Agency-----	21. 6	96. 3	70. 0	46. 3	35. 2	. 1	4. 4	3. 8	10. 5
Department of Agriculture-----	1. 2	1. 8	1. 5	-----	50. 3	-----	-----	1. 2	. 1
Department of the Interior-----	1. 1	. 3	. 1	-----	-----	2. 0	1. 0	2. 1	4. 4
Atomic Energy Commission-----	1. 0	-----	13. 2	1. 5	-----	1. 1	. 1	-----	. 6
All other-----	. 6	( <sup>2</sup> )	. 1	-----	7. 2	-----	. 3	29. 6	6. 3

<sup>1</sup> Limited to items in the budgets of Federal agencies that can be definitely identified as health and medical care expenditures. Excludes cost of pay of health personnel in the Air Force but includes pay of personnel in the Army

and Navy; excludes unknown amount for other health services which are not identifiable.

<sup>2</sup> Less than 0.05 percent.

SOURCE: U. S. Bureau of the Budget. Unpublished data.

State governmental agencies spent almost a billion dollars for health activities in 1948-49. Of this amount, State health departments spent only about one-sixth. A larger proportion was spent by the State departments of public welfare, which accounted for one-fifth of these expenditures in the fiscal year 1948-49, and by special State boards or commissions, boards of control and independent hospitals, which spent an additional 40 percent of the State total.

In the Southeastern States the expenditures of health departments accounted for a larger proportion of the total than in any other section of the country. In these States, health department expenditures comprised 25 percent of all funds for health, whereas the welfare departments in these States accounted for only 6 percent of the total.

More than 63 percent of all expenditures for health in the New England States was made by the special boards or commissions, boards of control and independent State hospitals.

Table 2.5.—Approximate total expenditures for health activities by all official agencies of each State and proportion of total amount expended by agencies of each type, fiscal year 1949

Region and State	Approximate total annual expenditure <sup>1</sup> for health activities by all official agencies (thousands of dollars) <sup>2</sup>	Percent of total expended by each agency									
		Department of Health	Department of Welfare	Department of Agriculture	Department of Labor	Department of Education	Special boards or commissions	Board of Control	Independent state hospitals	State university or college	Other agencies of State government
United States.....	962, 186	17. 5	20. 0	1. 1	2. 4	10. 1	27. 7	7. 8	4. 0	4. 7	4. 7
New England.....	76, 168	16. 7	11. 6	. 8	. 8	4. 2	40. 0	6. 2	17. 2	-----	2. 5
Central Atlantic.....	297, 348	19. 7	18. 7	. 3	4. 8	4. 4	39. 7	6. 4	-----	. 6	5. 4
Southeast.....	157, 715	24. 5	6. 1	3. 1	. 3	25. 5	14. 2	5. 6	11. 4	3. 4	5. 9
Southwest.....	48, 615	15. 9	6. 2	. 1	. 1	17. 8	13. 9	28. 1	4. 8	9. 9	3. 2
East North Central.....	185, 274	12. 3	44. 1	. 6	. 6	7. 7	23. 0	-----	-----	8. 3	3. 4
West North Central.....	68, 729	13. 8	22. 7	1. 2	. 4	10. 6	13. 5	19. 3	. 1	17. 0	1. 4
Rocky Mountain.....	22, 365	15. 3	13. 9	1. 0	4. 9	13. 2	4. 5	16. 2	19. 1	9. 4	2. 5
Far West.....	105, 971	14. 3	13. 7	1. 7	5. 3	7. 4	35. 0	10. 7	. 2	3. 6	8. 1
New England:											
Connecticut.....	19, 161	9. 4	<sup>3</sup> 7. 6	. 5	. 7	3. 3	23. 5	-----	53. 5	( <sup>4</sup> )	1. 5
Maine.....	5, 771	24. 7	1. 4	3. 4	. 1	<sup>3</sup> 8. 4	. 3	60. 2	-----	-----	1. 5
Massachusetts.....	37, 556	17. 3	9. 0	. 2	1. 0	<sup>3</sup> 3. 0	<sup>3</sup> 68. 4	-----	-----	( <sup>4</sup> )	1. 1
New Hampshire.....	4, 616	12. 6	12. 7	( <sup>4</sup> )	. 4	5. 9	3. 3	-----	62. 4	-----	2. 7
Rhode Island.....	6, 545	30. 5	<sup>3</sup> 51. 4	. 8	. 9	4. 9	. 2	-----	-----	-----	11. 3
Vermont.....	2, 520	17. 7	<sup>3</sup> . 1	6. 8	. 9	13. 5	2. 1	48. 5	-----	( <sup>4</sup> )	10. 4
Central Atlantic:											
Delaware.....	3, 310	19. 6	<sup>3</sup> . 3	( <sup>4</sup> )	-----	7. 4	<sup>3</sup> 52. 7	-----	-----	-----	20. 0
District of Columbia.....	17, 509	52. 9	-----	-----	. 2	2. 3	<sup>3</sup> . 5	-----	-----	-----	44. 1
Maryland.....	15, 625	35. 7	. 2	-----	. 3	7. 5	42. 7	-----	-----	12. 1	1. 5
New Jersey.....	20, 113	10. 4	-----	( <sup>4</sup> )	2. 9	<sup>3</sup> 4. 7	-----	77. 1	-----	-----	4. 9
New York.....	163, 965	16. 4	<sup>3</sup> 8. 3	. 4	6. 8	<sup>3</sup> 4. 1	63. 1	-----	-----	-----	. 9
Pennsylvania.....	65, 070	19. 6	60. 3	. 4	3. 5	3. 3	<sup>3</sup> 9. 1	-----	-----	( <sup>4</sup> )	3. 8
West Virginia.....	11, 756	10. 9	22. 5	. 4	. 8	11. 3	2. 1	30. 9	-----	-----	21. 1



Table 2.5.—Approximate total expenditures for health activities by all official agencies of each State and proportion of total amount expended by agencies of each type, fiscal year 1949—Continued

Region and State	Approximate total annual expenditure <sup>1</sup> for health activities by all official agencies (thousands of dollars) <sup>2</sup>	Percent of total expended by each agency									
		Department of Health	Department of Welfare	Department of Agriculture	Department of Labor	Department of Education	Special boards or commissions	Board of Control	Independent state hospitals	State university or college	Other agencies of State government
Southeast:											
Alabama	12,251	23.7	( <sup>4</sup> )	1.0	—	40.6	34.0	—	—	( <sup>4</sup> )	.7
Arkansas	8,710	14.5	<sup>3</sup> 4.6	—	( <sup>4</sup> )	13.0	<sup>3</sup> 29.3	—	16.1	7.5	15.0
Florida	11,495	25.9	7.0	.3	0.7	11.4	22.7	29.6	—	( <sup>4</sup> )	2.4
Georgia	15,553	40.8	27.0	1.3	.4	29.0	.2	—	—	—	1.3
Kentucky	9,812	22.7	29.3	—	<sup>3</sup> .3	32.6	11.0	—	—	( <sup>4</sup> )	4.1
Louisiana	29,825	10.2	1.1	( <sup>2</sup> )	( <sup>4</sup> )	34.6	( <sup>2</sup> )	9.3	43.2	.4	1.2
Mississippi	9,842	32.9	.6	.3	—	35.4	<sup>3</sup> 30.1	—	—	( <sup>4</sup> )	.7
North Carolina	18,619	22.7	.1	9.5	.8	19.9	45.7	—	—	—	1.3
South Carolina	10,621	31.6	.6	( <sup>3</sup> .5)	<sup>3</sup> .6	31.0	.8	—	35.2	( <sup>4</sup> )	.2
Tennessee	10,729	35.8	.9	13.0	<sup>3</sup> .7	22.7	—	25.2	—	( <sup>4</sup> )	1.7
Virginia	20,258	25.5	4.2	6.3	.4	8.8	2.0	—	—	22.4	30.4
Southwest:											
Arizona	4,475	13.3	6.3	—	—	<sup>3</sup> 11.8	40.4	—	24.6	<sup>3</sup> .2	3.4
New Mexico	3,461	20.8	26.6	—	( <sup>4</sup> )	<sup>3</sup> 10.8	1.4	—	36.2	.3	3.9
Oklahoma	12,599	16.6	14.5	.3	.5	13.7	<sup>3</sup> 36.0	—	—	13.9	4.5
Texas	28,081	15.3	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>5</sup> )	21.6	1.3	48.6	—	10.7	2.5
East North Central:											
Illinois	57,451	8.8	65.5	.5	.1	10.5	8.8	—	—	4.8	1.0
Indiana	15,506	16.2	12.2	—	.3	<sup>3</sup> 9.8	40.8	—	—	16.3	4.4
Michigan	60,396	15.5	14.0	.9	.3	<sup>3</sup> 4.5	<sup>3</sup> 51.6	—	( <sup>4</sup> )	10.1	3.1
Ohio	38,673	6.4	74.8	.2	1.7	<sup>3</sup> 5.6	( <sup>3</sup> .5)	—	( <sup>4</sup> )	3.6	7.7
Wisconsin	13,247	25.3	<sup>3</sup> 37.3	1.7	1.0	<sup>3</sup> 13.7	.5	—	—	19.9	.6
West North Central:											
Iowa	14,368	6.9	1.1	1.2	.2	<sup>3</sup> 11.6	<sup>3</sup> 1.6	38.5	—	38.4	.5
Kansas	10,214	12.6	48.0	.7	.5	<sup>3</sup> 7.5	<sup>3</sup> 3.9	—	—	23.8	3.0
Minnesota	16,546	10.5	<sup>3</sup> 57.6	2.2	<sup>3</sup> .4	10.2	—	—	—	16.9	2.2
Missouri	14,663	24.7	<sup>3</sup> .3	.8	<sup>3</sup> .5	<sup>3</sup> 16.0	55.5	—	—	2.1	.1
Nebraska	6,286	10.7	—	.8	.4	5.9	<sup>3</sup> .4	72.1	—	8.9	.8
North Dakota	4,136	11.9	18.8	.9	—	7.9	10.7	45.5	<sup>6</sup> 2.1	.2	2.0
South Dakota	2,517	28.5	8.2	1.6	—	<sup>3</sup> 5.1	<sup>3</sup> .9	51.2	—	1.6	2.9
Rocky Mountain:											
Colorado	10,038	10.2	11.4	.6	7.2	<sup>3</sup> 4.2	.2	—	42.5	20.7	3.0
Idaho	2,488	31.8	8.2	3.7	.2	<sup>3</sup> 9.9	7.4	36.3	—	—	2.5
Montana	3,370	14.9	<sup>3</sup> .8	.5	—	20.1	12.5	49.4	—	( <sup>4</sup> )	1.8
Utah	4,400	19.8	39.6	.7	8.1	<sup>3</sup> 29.8	.8	—	—	<sup>3</sup> .4	.8
Wyoming	2,070	11.4	( <sup>4</sup> )	1.1	( <sup>4</sup> )	14.3	16.8	51.0	—	( <sup>4</sup> )	5.4
Far West:											
California	60,557	20.6	1.2	1.7	<sup>3</sup> 1.5	9.0	54.6	—	—	4.0	7.4
Nevada	1,396	19.1	( <sup>4</sup> )	—	—	<sup>3</sup> 6.3	58.3	—	12.3	.6	3.4
Oregon	11,703	7.9	<sup>3</sup> 8.9	1.3	( <sup>4</sup> )	<sup>3</sup> 7.6	26.8	35.8	—	10.6	1.1
Washington	32,316	4.7	<sup>3</sup> 39.3	2.0	14.6	<sup>3</sup> 4.3	.3	22.3	—	.4	12.1

<sup>1</sup> Amounts almost always cover the fiscal year 1949 as established in the several States. These expenditures represent index rather than absolute amounts. In some instances, estimates were accepted in the absence of precise expenditure records. Expenditures for constructions are not included.

<sup>2</sup> Because of rounding, the sum of the parts may not add to the totals.

<sup>3</sup> Information incomplete.

<sup>4</sup> Information not available.

<sup>5</sup> Less than  $\frac{1}{10}$  of 1 percent.

<sup>6</sup> This facility is an independent State laboratory.

SOURCE: Joseph W. Mountin, Evelyn Flook, and Edward E. Minty. Distribution of Health Services in the Structure of State Government, 1950, pt. I, p. 40. Public Health Service Publication No. 184 (Washington, D. C., 1952).

Total health expenditures by all official State agencies of nearly \$1.0 billion in the fiscal year 1948-49 represented \$6.36 per capita.

The highest per capita expenditure for health was \$8.30 by those States in the Central Atlantic region, while the lowest per capita was \$4.27 for the Southwestern region of the United States.

State funds accounted for 74 percent of this total; 25 percent came from Federal funds, including 9 percent of the total from the Department of Agriculture primarily for school lunch programs.

These expenditures include amounts spent by all agencies of State governments for preventive services, hospital care, and other medical care and include funds received by States from Federal agencies, local governments, and private agencies. They do not include local funds spent by local governments for health activities.

**Table 2.6.—Approximate total and per capita expenditures for health activities by all official State agencies and percentage distribution by source of funds, fiscal year 1949**

Region and State	Approximate annual expenditure for health activities by all official agencies		Percent of total derived from each source						
	Total (thousands of dollars) <sup>1</sup>	Per capita <sup>2</sup>	State funds	Local funds	Federal funds				
					Public Health Service <sup>3</sup>	Children's Bureau <sup>4</sup>	Office of Vocational Rehabilitation <sup>5</sup>	Department of Agriculture <sup>6</sup>	Other
United States.....	962, 186	\$6. 36	73. 8	1. 4	3. 7	1. 9	0. 3	9. 2	9. 7
New England.....	76, 168	8. 16	79. 7	1. 7	2. 5	1. 8	. 1	4. 6	9. 6
Central Atlantic.....	297, 348	8. 30	83. 7	(?)	2. 1	1. 0	. 1	4. 2	8. 8
Southeast.....	157, 715	4. 95	60. 0	. 9	7. 5	4. 1	. 8	21. 6	5. 1
Southwest.....	48, 615	4. 27	56. 4	. 4	6. 4	3. 5	. 5	19. 1	13. 7
East North Central.....	185, 274	6. 07	78. 3	2. 6	3. 1	1. 2	. 3	7. 2	7. 3
West North Central.....	68, 729	4. 86	65. 6	5. 1	4. 2	2. 7	. 2	10. 9	11. 3
Rocky Mountain.....	22, 365	6. 36	60. 4	1. 7	3. 8	3. 8	. 3	10. 1	19. 9
Far West.....	105, 971	7. 23	70. 3	1. 7	2. 4	1. 1	. 4	5. 7	18. 4
New England:									
Connecticut.....	19, 161	9. 51	78. 5	4. 5	1. 9	1. 3	. 2	3. 3	10. 3
Maine.....	5, 771	6. 27	72. 4	3. 4	3. 6	3. 2	. 2	7. 4	9. 8
Massachusetts.....	37, 556	7. 99	81. 5	-----	2. 6	1. 2	. 3	4. 3	10. 1
New Hampshire.....	4, 616	8. 61	73. 6	2. 3	2. 6	2. 9	(?)	6. 4	12. 2
Rhode Island.....	6, 545	8. 31	86. 3	2. 1	2. 0	2. 8	. 1	4. 5	2. 2
Vermont.....	2, 520	6. 63	71. 7	. 9	4. 6	5. 5	1. 0	9. 9	6. 4
Central Atlantic:									
Delaware.....	3, 310	10. 38	80. 0	. 2	3. 2	3. 0	1. 0	3. 8	8. 8
Dist. of Columbia.....	17, 509	22. 16	95. 6	-----	1. 9	1. 5	-----	1. 0	-----
Maryland.....	15, 625	6. 64	77. 3	. 1	4. 2	3. 1	. 2	6. 6	8. 5
New Jersey.....	20, 113	4. 13	53. 8	. 1	4. 4	1. 3	. 2	7. 1	33. 1
New York.....	163, 965	10. 99	84. 9	(?)	1. 3	. 4	. 1	3. 0	10. 3
Pennsylvania.....	65, 070	6. 17	90. 8	. 1	2. 5	1. 3	. 1	4. 5	. 7
West Virginia.....	11, 756	5. 85	70. 4	-----	5. 4	3. 6	. 7	16. 1	3. 8



**Table 2.6.—Approximate total and per capita expenditures for health activities by all official State agencies and percentage distribution by source of funds, fiscal year 1949—Continued**

Region and State	Approximate annual expenditure for health activities by all official agencies		Percent of total derived from each source						
	Total (thousands of dollars) <sup>1</sup>	Per capita <sup>2</sup>	State funds	Local funds	Federal funds				
					Public Health Service <sup>3</sup>	Children's Bureau <sup>4</sup>	Office of Vocational Rehabilitation <sup>5</sup>	Department of Agriculture <sup>6</sup>	Other
<b>Southeast:</b>									
Alabama.....	12,251	4.00	48.2	1.8	8.5	5.1	.9	32.1	3.4
Arkansas.....	8,710	4.55	56.2	.5	7.1	5.0	.4	25.5	5.3
Florida.....	11,495	4.12	64.3	1.3	8.2	3.0	1.4	15.2	6.6
Georgia.....	15,553	4.50	56.4	.4	10.4	4.4	1.6	25.5	1.3
Kentucky.....	9,812	3.32	44.1	.2	10.4	6.1	.3	31.5	7.4
Louisiana.....	29,825	11.10	83.1	-----	3.6	1.7	.2	10.3	1.1
Mississippi.....	9,842	4.51	48.9	(7)	13.2	6.2	.8	29.1	1.8
North Carolina.....	18,619	4.56	59.8	.2	7.4	4.4	1.1	23.5	3.6
South Carolina.....	10,621	5.01	54.9	.9	8.8	5.8	1.4	26.9	1.3
Tennessee.....	10,729	3.25	44.2	4.2	9.7	5.6	.8	30.1	5.4
Virginia.....	20,258	6.11	59.2	1.9	4.5	3.0	.5	13.1	17.8
<b>Southwest:</b>									
Arizona.....	4,475	5.94	35.6	-----	4.2	4.8	.1	11.1	44.2
New Mexico.....	3,461	5.01	60.1	.7	8.8	6.9	.5	18.7	4.3
Oklahoma.....	12,599	5.64	65.3	.3	5.6	3.1	.3	19.2	6.2
Texas.....	28,081	3.64	55.5	.4	6.8	3.1	.6	20.3	13.3
<b>East North Central:</b>									
Illinois.....	57,451	6.57	89.3	(7)	2.9	.9	.5	5.5	.9
Indiana.....	15,506	3.92	56.5	11.8	4.6	2.3	.3	13.0	11.5
Michigan.....	60,396	9.44	79.5	2.2	2.0	.9	.3	4.9	10.2
Ohio.....	38,673	4.86	74.9	1.5	4.1	1.4	.1	9.8	8.2
Wisconsin.....	13,247	3.84	60.0	8.3	4.6	2.6	.3	10.3	13.9
<b>West North Central:</b>									
Iowa.....	14,368	5.45	70.4	-----	3.2	1.9	.2	11.4	12.9
Kansas.....	10,214	5.33	55.4	-----	4.5	2.3	.1	11.8	25.9
Minnesota.....	16,546	5.51	80.1	1.9	3.5	2.3	(7)	9.9	2.3
Missouri.....	14,663	3.69	65.5	5.5	4.9	2.8	.4	14.1	6.8
Nebraska.....	6,286	4.70	40.4	33.6	4.2	3.8	.2	7.9	9.9
North Dakota.....	4,136	6.62	51.3	5.9	5.0	4.1	.2	7.6	25.9
South Dakota.....	2,517	3.81	75.1	.7	6.7	5.5	.2	4.5	7.3
<b>Rocky Mountain:</b>									
Colorado.....	10,038	7.59	65.6	1.9	3.2	2.8	.1	6.9	19.5
Idaho.....	2,487	4.19	58.0	-----	6.7	6.3	.2	15.9	12.9
Montana.....	3,370	5.63	45.9	.9	3.8	4.4	.5	9.2	35.3
Utah.....	4,400	6.33	61.8	3.4	3.4	4.5	.5	14.1	12.3
Wyoming.....	2,070	7.11	59.3	-----	4.0	3.5	.4	11.3	21.5
<b>Far West:</b>									
California.....	60,557	5.72	71.7	2.5	2.8	1.1	.5	6.3	15.1
Nevada.....	1,396	8.72	17.0	4.6	5.4	6.5	.2	5.7	60.6
Oregon.....	11,703	7.67	53.8	2.1	2.8	1.5	1.2	7.1	31.5
Washington.....	32,316	13.57	75.4	-----	1.4	.9	.1	4.2	18.0

<sup>1</sup> Amounts almost always cover the fiscal year 1949 as established in the several States. These expenditures represent index rather than absolute amounts. In some instances, estimates were accepted in the absence of precise expenditure records; in others, it was impossible to secure even an estimate. Expenditures for construction are not included.

<sup>2</sup> Department of Commerce, Bureau of the Census, 1950 Census of Population, Advance Reports, Series PC-9, No. 1; PC-11, No. 1; PC-4, No. 2.

<sup>3</sup> Includes Public Health Service grants-in-aid for general health, venereal disease, tuberculosis, mental health, cancer, heart disease, and hospital survey and planning.

<sup>4</sup> Includes Children's Bureau grants-in-aid for maternal and child health and crippled children.

<sup>5</sup> Includes that portion of the grant-in-aid from Office of Vocational Rehabilitation utilized for physical restoration.

<sup>6</sup> Primarily grant-in-aid from Department of Agriculture for the school lunch program.

<sup>7</sup> Less than 0.05.

SOURCE: Joseph W. Mountin, Evelyn Flook, and Edward E. Minty. Distribution of Health Services in the Structure of States Government, 1950, pt. I, p. 43, Public Health Service Publication No. 184 (Washington, D. C. 1952).

In 1951-52 the States and local communities had about \$270 million to finance their public health services. Roughly two-fifths of all funds for public health services came from local governments, two-fifths from the States, and one-fifth from the Federal Government.

Federal grants for general health programs, disease control, and water pollution control accounted for less than one-seventh of the total available to States from all sources for health programs. Federal grants for maternal and child health and services to crippled children represented less than one-tenth of all State health funds from all sources.

**Table 2.7.—Total amounts available for all public health services, fiscal year 1952**

Item	Amount	Percent
United States.....	\$271, 426, 675	100. 0
State appropriations and fees.....	106, 511, 208	39. 2
State health department <sup>1</sup> .....	101, 794, 732	-----
Mental health authorities <sup>2</sup> .....	4, 716, 476	-----
Local appropriations <sup>1</sup> .....	103, 695, 067	38. 2
Federal appropriations.....	61, 220, 400	22. 6
Public Health Service.....	37, 310, 800	13. 8
General Health.....	13, 500, 000	-----
Venereal Diseases.....	9, 528, 300	-----
Tuberculosis Control.....	5, 800, 000	-----
Mental Health.....	3, 100, 000	-----
Cancer Control.....	3, 100, 000	-----
Heart Disease Control.....	1, 500, 000	-----
Water Pollution Control (industrial waste studies).....	782, 500	-----
Children's Bureau.....	23, 909, 600	8. 8

<sup>1</sup> Excludes identified in-patient care.

<sup>2</sup> 19 State agencies other than State health departments. Excludes in-patient care.

SOURCE: For State and local funds, Form PHS-970 and budgets submitted to the Public Health Service, Division of State Grants, by State health departments and mental health authorities.



Federal grants-in-aid for health have stimulated both an absolute and a relative increase in State and local financing of health activities. Increases have occurred in Federal grants for all the State programs for which the Public Health Service administers Federal funds, except the heart disease control program which was begun only in 1950.

In all of these programs State and local funds in 1951 represented a larger share of total funds than in the year Federal aid was first started. In 1937, the earliest year of the general health program (the largest of the programs in terms of the funds available), State and local funds were \$25 million or 76 percent of the total; by 1951 State and local funds for the General Health program had increased to \$153 million, or 91 percent of total funds. In the cancer control program, the portion State and local funds represented of total funds increased from 65 percent in 1948 to 78 percent in 1951.

Table 2.8.—Funds available for public health services and categorical health programs, earliest program year and fiscal year, 1951

Type of program	Year <sup>1</sup>	Federal funds	State and local funds	Total funds	Percent increase	Percent increase adjusted <sup>2</sup>	Percent State and local funds
<i>Public Health Service</i>							
General health.....	1937	\$8,000,000	\$24,977,228	\$32,977,228			75.7
General health.....	1951	13,540,000	139,690,718	153,231,218	364.7	118.4	91.2
Venereal disease.....	1939	2,400,000	2,112,859	4,512,859			46.8
Venereal disease.....	1951	9,898,485	14,644,653	24,543,138	443.8	152.4	59.7
Tuberculosis.....	1945			28,132,186			95.1
Preventive.....		1,370,114	1,432,018				
Hospital care.....			25,330,054				
Tuberculosis.....	1951			143,499,402	410.1	214.6	95.6
Preventive.....		6,350,000	16,244,944				
Hospital care.....			120,904,458				
Mental health.....	1948			6,226,009			51.8
Preventive.....		3,000,000	2,398,042				
Hospital care.....			827,967				
Mental health.....	1951			11,019,218	63.7	55.3	68.6
Preventive.....		3,200,000	7,297,150				
Hospital care.....			522,068				
Cancer control.....	1948	2,500,000	4,585,714	7,085,714			64.7
Cancer control.....	1951	3,200,000	11,145,920	14,345,920	102.5	77.7	77.7
Heart disease control.....	1950	2,000,000	2,797,438	4,797,438			58.3
Heart disease control.....	1951	1,700,000	2,963,493	4,663,493	-2.8	-8.6	63.5

<sup>1</sup> Earlier year is the first year of Federal participation under the grant-in-aid program.

<sup>2</sup> After allowance for increased prices and wages. Expenditures were adjusted by the Department of Commerce price deflator for State and local government purchases of goods and services.

SOURCE: Hearings before the Committee on Interstate and Foreign Commerce, 82d Cong., 1st sess., on H. R. 274 and H. R. 913, pp. 132-133 (Washington, D. C., 1951).

From 1940 to 1950 the total amounts spent by State health departments more than tripled.

The amount per capita has risen from 36 cents in 1940 to \$1.11 in 1950, an apparent increase of more than 200 percent.

After allowance for higher price levels and wages, however, the increase in total expenditures was 76 percent and in per capita expenditures, 53 percent.

Table 2.9.—Approximate total and per capita expenditures by the health department of each State, and percentage increase in total and per capita expenditures, 1940 and 1950 surveys

Region and State	Approximate total annual health department expenditures <sup>1</sup>				Approximate per capita annual health department expenditures <sup>2</sup>			
	Thousands of dollars <sup>3</sup>		Percent increase	Percent increase after allowance for increasing prices and wages <sup>6</sup>	1940 survey	1950 survey	Percent increase	Percent increase after allowance for increasing prices and wages <sup>6</sup>
	1940 survey <sup>4</sup>	1950 survey <sup>5</sup>						
United States .....	47, 956	168, 466	251	76	\$0. 36	\$1. 11	208	53
New England .....	5, 908	12, 733	116	8	. 70	1. 36	94	-3
Central Atlantic .....	15, 867	58, 559	269	84	. 49	1. 64	235	67
Southeast .....	11, 509	38, 576	235	68	. 41	1. 21	195	46
Southwest .....	2, 067	7, 700	272	86	. 21	. 68	224	62
East North Central .....	5, 100	22, 761	346	123	. 19	. 75	295	95
West North Central .....	2, 939	9, 519	224	62	. 22	. 67	205	50
Rocky Mountain .....	1, 440	3, 430	138	19	. 48	. 98	104	2
Far West .....	3, 125	15, 188	386	143	. 31	1. 04	235	68
New England:								
Connecticut .....	562	1, 798	220	60	. 33	. 89	170	33
Maine .....	371	1, 425	284	92	. 44	1. 55	252	75
Massachusetts .....	3, 793	6, 484	71	-15	. 88	1. 38	57	-22
New Hampshire .....	207	588	183	42	. 42	1. 10	162	31
Rhode Island .....	793	1, 993	151	26	1. 11	2. 53	128	14
Vermont .....	182	445	145	22	. 51	1. 17	129	14
Central Atlantic:								
Delaware .....	448	648	44	-28	1. 67	2. 03	22	-40
District of Columbia .....	2, 658	9, 261	248	74	3. 90	11. 72	201	50
Maryland .....	763	5, 586	632	266	. 41	2. 37	478	188
New Jersey .....	918	2, 090	128	14	. 22	. 43	95	-5
New York .....	6, 990	26, 940	285	93	. 52	1. 81	248	73
Pennsylvania .....	3, 693	12, 753	245	73	. 37	1. 21	227	62
West Virginia .....	395	1, 281	224	62	. 21	. 64	205	52
Southeast:								
Alabama .....	1, 146	2, 910	154	27	. 40	. 95	138	18
Arkansas .....	642	1, 263	97	-2	. 33	. 66	100	(7)
Florida .....	552	2, 976	439	170	. 29	1. 07	269	83
Georgia .....	1, 146	6, 355	455	177	. 37	1. 84	397	149
Kentucky .....	1, 010	2, 228	120	10	. 35	. 75	114	6
Louisiana .....	1, 028	3, 036	195	48	. 43	1. 13	163	30
Mississippi .....	909	3, 238	256	78	. 42	1. 48	252	76
North Carolina .....	1, 184	4, 218	256	78	. 33	1. 03	212	55
South Carolina .....	886	3, 358	279	89	. 47	1. 58	236	68
Tennessee .....	1, 133	3, 837	239	69	. 39	1. 16	197	49
Virginia .....	1, 873	5, 156	175	38	. 69	1. 56	126	13



**Table 2.9.—Approximate total and per capita expenditures by the health department of each State, and percentage increase in total and per capita expenditures, 1940 and 1950 survey—continued**

Region and State	Approximate total annual health department expenditures <sup>1</sup>				Approximate per capita annual health department expenditures <sup>2</sup>			
	Thousands of dollars <sup>3</sup>		Percent increase	Percent increase after allowance for increasing prices and wages <sup>6</sup>	1940 survey	1950 survey	Percent increase	Percent increase after allowance for increasing prices and wages <sup>6</sup>
	1940 survey <sup>4</sup>	1950 survey <sup>5</sup>						
<b>Southwest:</b>								
Arizona.....	177	595	237	68	.35	.79	126	11
New Mexico.....	222	718	223	62	.42	1.04	148	24
Oklahoma.....	541	2,090	286	93	.23	.94	309	104
Texas.....	1,127	4,297	281	91	.18	.56	211	56
<b>East North Central:</b>								
Illinois.....	1,545	5,075	228	64	.20	.58	190	45
Indiana.....	665	2,511	278	89	.19	.64	237	68
Michigan.....	1,321	9,339	607	253	.25	1.46	484	192
Ohio.....	926	2,484	168	34	.13	.31	138	15
Wisconsin.....	643	3,352	421	160	.20	.97	385	140
<b>West North Central:</b>								
Iowa.....	479	997	108	4	.19	.38	100	( <sup>7</sup> )
Kansas.....	405	1,281	216	58	.23	.67	191	43
Minnesota.....	694	1,728	149	24	.25	.58	132	16
Missouri.....	721	3,626	403	151	.19	.91	379	137
Nebraska.....	259	676	161	31	.20	.51	155	25
North Dakota.....	177	494	180	40	.28	.79	182	39
South Dakota.....	205	717	250	75	.32	1.09	241	69
<b>Rocky Mountain:</b>								
Colorado.....	463	1,026	121	11	.41	.77	88	-7
Idaho.....	253	792	213	56	.48	1.34	179	40
Montana.....	168	502	199	49	.30	.84	180	40
Utah.....	446	873	96	-2	.80	1.26	58	-21
Wyoming.....	109	237	116	8	.44	.81	84	-9
<b>Far West:</b>								
California.....	2,451	12,493	410	155	.35	1.18	237	69
Nevada.....	103	266	159	29	.92	1.66	80	-10
Oregon.....	284	927	226	63	.26	.61	135	15
Washington.....	287	1,502	424	162	.16	.63	294	94

<sup>1</sup> State health department expenditures for the support of all activities engaged in by the staff of the State health department, plus grants to local units and reimbursements for hospital services. Expenditures by local health departments of funds derived from local sources are not included.

<sup>2</sup> Population as of July 1, 1940, and 1950.

<sup>3</sup> Because of rounding the sum of the parts may not add to the total.

<sup>4</sup> Amounts cover the latest year for which information was available at the date of interviews.

<sup>5</sup> Amounts cover the fiscal year ending June 30, 1949, as reported to the Public Health Service on the Annual Expenditure Report. Expenditures for construction are not included.

<sup>6</sup> 1950 expenditures adjusted by the Department of Commerce price deflator for State and local government purchases of goods and services, shifted from a 1939 to a 1940 base.

<sup>7</sup> Less than ½ of 1 percent.

SOURCES: Modified from Joseph W. Mountin, Evelyn Flook and Edward E. Minty. Distribution of Health Service in the Structure of State Government. 1950, pt. I, p. 45, Public Health Service Publication No. 184 (Washington, D. C., 1952).

Bureau of the Census, Series P-25, No. 47 (Washington, D. C., March 9, 1951).

Bureau of the Census, Series P-25, No. 50 (Washington, D. C., May 9, 1951).

For all the States, the proportion of Federal funds in the total funds spent by State health departments declined from about 34 percent of the total spent in 1940 to 29 percent in 1950. For some States, however, increases occurred.

Table 2.10.—Approximate total annual expenditures by the health department of each State, and the percentage of total State health department expenditures derived from Federal funds, 1940 and 1950 surveys

Region and State	Approximate total annual health department expenditures			Percent of total State health department expenditures derived from Federal funds			
	1940 survey <sup>1</sup>	1950 survey <sup>2</sup>	Percent increase	1940	1950	1940 to 1950	
						Increase	Decrease
United States.....	\$47, 956, 400	\$168, 465, 800	251	34. 3	28. 9	-----	— 5. 4
New England.....	5, 907, 700	12, 732, 900	116	19. 5	23. 2	3. 7	-----
Central Atlantic.....	15, 867, 400	58, 559, 000	269	19. 2	14. 8	-----	4. 4
Southeast.....	11, 509, 300	38, 576, 100	235	42. 5	43. 5	1. 0	-----
Southwest.....	2, 067, 400	7, 699, 900	272	70. 8	57. 4	-----	13. 4
East North Central.....	5, 100, 200	22, 761, 100	346	44. 8	29. 8	-----	15. 0
West North Central.....	2, 939, 000	9, 518, 700	224	55. 4	40. 3	-----	15. 1
Rocky Mountain.....	1, 440, 100	3, 430, 000	138	54. 9	47. 9	-----	7. 0
Far West.....	3, 125, 300	15, 188, 100	386	37. 7	23. 4	-----	14. 3
New England:							
Connecticut.....	562, 000	1, 798, 300	220	34. 6	31. 1	-----	3. 5
Maine.....	370, 700	1, 425, 200	284	44. 4	27. 2	-----	17. 2
Massachusetts.....	3, 793, 400	6, 484, 300	71	12. 1	18. 9	6. 8	-----
New Hampshire.....	207, 400	587, 600	183	56. 9	39. 3	-----	17. 6
Rhode Island.....	792, 600	1, 992, 600	151	14. 7	16. 0	1. 3	-----
Vermont.....	181, 600	444, 900	145	54. 0	52. 6	-----	1. 4
Central Atlantic:							
Delaware.....	448, 300	647, 600	44	21. 7	29. 5	7. 8	-----
District of Columbia.....	2, 658, 500	9, 261, 400	248	6. 6	6. 5	-----	. 1
Maryland.....	763, 500	5, 585, 700	632	42. 5	20. 3	-----	22. 2
New Jersey.....	918, 400	2, 090, 300	128	41. 5	48. 3	6. 8	-----
New York.....	6, 990, 400	26, 940, 200	285	14. 9	9. 1	-----	5. 8
Pennsylvania.....	3, 693, 200	12, 752, 700	245	21. 8	18. 7	-----	3. 1
West Virginia.....	395, 100	1, 281, 100	224	57. 0	70. 5	13. 5	-----
Southeast:							
Alabama.....	1, 145, 900	2, 910, 500	154	50. 8	50. 8	-----	-----
Arkansas.....	642, 400	1, 263, 300	97	63. 3	61. 3	-----	2. 0
Florida.....	551, 800	2, 976, 400	439	47. 6	39. 9	-----	7. 7
Georgia.....	1, 145, 700	6, 354, 800	455	42. 2	33. 2	-----	9. 0
Kentucky.....	1, 010, 500	2, 228, 100	120	38. 0	61. 5	23. 5	-----
Louisiana.....	1, 027, 700	3, 036, 000	195	29. 8	49. 0	19. 2	-----
Mississippi.....	909, 100	3, 237, 700	256	45. 0	51. 3	6. 3	-----
North Carolina.....	1, 183, 900	4, 218, 100	256	50. 2	50. 3	. 1	-----
South Carolina.....	886, 000	3, 357, 700	279	45. 7	45. 1	-----	. 6
Tennessee.....	1, 133, 400	3, 837, 400	239	47. 5	42. 7	-----	4. 8
Virginia.....	1, 872, 900	5, 156, 100	175	27. 7	27. 9	. 2	-----



Table 2.10.—Approximate total annual expenditures by the health department of each State, and the percentage of total State health department expenditures derived from Federal funds, 1940 and 1950 surveys—Continued

Region and State	Approximate total annual health department expenditures			Percent of total State health department expenditures derived from Federal funds			
	1940 survey <sup>1</sup>	1950 survey <sup>2</sup>	Percent increase	1940	1950	1940 to 1950	
						Increase	Decrease
Southwest:							
Arizona.....	\$176, 700	\$594, 800	237	73. 2	49. 1	-----	24. 1
New Mexico.....	222, 100	717, 900	223	72. 3	67. 3	-----	4. 7
Oklahoma.....	541, 200	2, 090, 500	286	58. 6	41. 9	-----	16. 7
Texas.....	1, 127, 400	4, 296, 700	281	76. 1	64. 5	-----	11. 6
East North Central:							
Illinois.....	1, 544, 700	5, 074, 800	228	43. 5	39. 1	-----	4. 4
Indiana.....	664, 900	2, 511, 300	278	48. 2	35. 5	-----	12. 7
Michigan.....	1, 321, 000	9, 338, 600	607	37. 8	15. 2	-----	22. 6
Ohio.....	926, 200	2, 484, 100	168	59. 5	70. 0	10. 5	-----
Wisconsin.....	643, 400	3, 352, 300	421	37. 3	22. 6	-----	14. 7
West North Central:							
Iowa.....	478, 600	996, 600	108	56. 4	49. 8	-----	6. 6
Kansas.....	405, 000	1, 281, 000	216	64. 2	46. 3	-----	17. 9
Minnesota.....	694, 300	1, 728, 100	149	42. 2	46. 3	4. 1	-----
Missouri.....	721, 000	3, 626, 200	403	62. 8	25. 9	-----	36. 9
Nebraska.....	258, 700	675, 700	161	37. 9	57. 4	19. 5	-----
North Dakota.....	176, 600	494, 500	180	60. 8	63. 4	2. 6	-----
South Dakota.....	204, 800	716, 600	250	72. 2	42. 5	-----	29. 7
Rocky Mountain:							
Colorado.....	463, 300	1, 025, 800	121	62. 5	56. 2	-----	6. 3
Idaho.....	253, 400	792, 000	213	61. 5	40. 9	-----	20. 6
Montana.....	168, 200	502, 300	199	64. 0	50. 6	-----	13. 4
Utah.....	445, 900	873, 300	96	37. 8	38. 2	. 4	-----
Wyoming.....	109, 300	236, 600	116	63. 2	66. 1	2. 9	-----
Far West:							
California.....	2, 451, 400	12, 493, 300	410	30. 2	17. 6	-----	12. 6
Nevada.....	102, 900	266, 200	159	65. 8	62. 1	-----	3. 7
Oregon.....	284, 100	926, 600	226	66. 6	46. 0	-----	20. 6
Washington.....	286, 900	1, 502, 000	424	63. 8	50. 3	-----	13. 5

<sup>1</sup> Amounts cover the latest year for which information was available at the date of interviews.

<sup>2</sup> Amounts cover the fiscal year ending June 30, 1949, as reported to the Public Health Service on the Annual Expenditure Report. Expenditures for construction are not included.

## SOURCES:

Joseph W. Mountin, Evelyn Flook, and Edward E. Minty. Distribution of Health Services in the Structure of State Government, 1950, pt. I. Public Health Service Publication 184 (Washington, D. C., 1952).

Public Health Service. Data prepared by Division of State Grants. (Washington, D. C.).

For all States, State appropriations to their health departments increased by nearly \$60 million from 1946 to 1952, exclusive of appropriations for hospital and sanatoria care.

The increase of 170 percent from \$35 million to \$94 million is reduced to 83 percent when account is taken of price rises.

Much of the increase in the period represents larger amounts granted by States to local health units. Thus, one-third of the \$60 million increase is accounted for by New York's appropriations for civil defense and local health departments and California's appropriations to local health units.

Table 2.11.—State appropriations to State Health Departments, 1946 and 1952

Region and State	1952	1946	Increase		
			Amount	Percent	Percent increase after adjustment to 1939 dollars
United States <sup>1</sup> .....	\$94, 202, 013	\$34, 897, 288	\$59, 304, 725	169. 9	83. 3
New England.....	6, 841, 942	3, 624, 982	3, 216, 960	88. 7	28. 2
Central Atlantic.....	38, 957, 122	11, 326, 213	27, 630, 909	244. 0	133. 5
Southeast.....	19, 727, 973	8, 216, 768	11, 511, 205	140. 1	63. 0
Southwest.....	3, 278, 731	1, 446, 454	1, 832, 277	126. 8	53. 9
East North Central.....	9, 903, 650	5, 462, 578	4, 441, 072	81. 3	23. 1
West North Central.....	3, 675, 617	1, 769, 451	1, 906, 166	107. 8	41. 1
Rocky Mountain.....	1, 644, 730	766, 042	878, 688	114. 7	45. 9
Far West.....	10, 172, 248	2, 284, 800	7, 887, 448	345. 2	202. 2
New England:					
Connecticut.....	2, 073, 588	1, 121, 063	952, 525	85. 0	25. 6
Maine.....	641, 891	336, 865	305, 026	90. 5	29. 6
Massachusetts.....	2, 637, 193	1, 587, 855	1, 049, 338	66. 1	12. 8
New Hampshire.....	442, 978	131, 044	311, 934	238. 0	128. 9
Rhode Island.....	637, 514	347, 155	290, 359	83. 6	24. 9
Vermont.....	408, 778	101, 000	307, 778	304. 7	175. 4
Central Atlantic:					
Delaware.....	339, 800	151, 454	188, 346	124. 4	51. 9
District of Columbia.....	2, 784, 260	1, 340, 000	1, 444, 260	107. 8	41. 0
Maryland.....	3, 122, 645	1, 042, 713	2, 079, 932	199. 5	103. 2
New Jersey.....	1, 219, 844	705, 401	514, 443	72. 9	17. 4
New York.....	23, 560, 713	3, 799, 431	19, 761, 282	520. 1	321. 0
Pennsylvania.....	7, 043, 000	4, 007, 714	3, 035, 286	75. 3	19. 3
West Virginia.....	886, 860	279, 500	607, 360	217. 3	115. 7



Table 2.11.—State appropriations to State Health Departments, 1946 and 1952—Continued

Region and State	1952	1946	Increase		
			Amount	Percent	Percent increase after adjustment to 1939 dollars
<b>Southeast:</b>					
Alabama.....	973, 730	686, 680	287, 050	41. 8	-3. 6
Arkansas.....	630, 995	452, 810	178, 185	39. 4	-5. 5
Florida.....	2, 366, 101	817, 940	1, 548, 161	189. 3	96. 4
Georgia.....	3, 348, 352	675, 000	2, 673, 352	396. 1	237. 1
Kentucky.....	1, 328, 102	868, 575	459, 527	52. 9	3. 7
Louisiana.....	1, 816, 700	800, 000	1, 016, 700	127. 1	54. 1
Mississippi.....	1, 166, 765	548, 996	617, 769	112. 5	44. 3
North Carolina.....	2, 221, 250	751, 436	1, 469, 814	195. 6	100. 6
South Carolina.....	1, 078, 170	519, 542	558, 628	107. 5	40. 8
Tennessee.....	2, 118, 850	907, 113	1, 211, 737	133. 4	58. 5
Virginia.....	2, 678, 958	1, 188, 676	1, 490, 282	125. 4	53. 1
<b>Southwest:</b>					
Arizona.....	136, 575	91, 050	45, 525	50. 0	1. 6
New Mexico.....	516, 915	129, 460	387, 455	299. 3	172. 7
Oklahoma.....	774, 200	407, 975	366, 225	89. 8	28. 7
Texas.....	1, 851, 041	817, 969	1, 033, 072	126. 3	53. 7
<b>East North Central:</b>					
Illinois.....	3, 792, 005	2, 108, 447	1, 683, 558	79. 8	22. 1
Indiana.....	1, 494, 660	370, 508	1, 124, 152	303. 4	174. 3
Michigan.....	2, 460, 187	1, 772, 020	688, 167	38. 8	-5. 7
Ohio.....	1, 014, 262	555, 853	548, 409	98. 7	35. 0
Wisconsin.....	1, 052, 536	655, 750	396, 786	60. 5	8. 9
<b>West North Central:</b>					
Iowa.....	544, 420	294, 105	250, 315	85. 1	25. 9
Kansas.....	681, 725	490, 018	191, 707	39. 1	-5. 7
Minnesota.....	1, 147, 981	383, 105	764, 876	199. 7	103. 4
Missouri.....	544, 000	246, 500	297, 500	120. 7	50. 0
Nebraska.....	367, 792	154, 519	213, 273	138. 0	61. 3
North Dakota.....	209, 000	120, 204	88, 796	73. 9	18. 3
South Dakota.....	180, 699	81, 000	99, 699	123. 1	52. 7
<b>Rocky Mountain:</b>					
Colorado.....	454, 338	169, 764	284, 574	167. 6	81. 9
Idaho.....	271, 250	113, 315	157, 935	139. 4	63. 6
Montana.....	282, 645	173, 891	108, 754	62. 5	10. 1
Utah.....	501, 000	244, 852	256, 148	104. 6	38. 9
Wyoming.....	135, 497	64, 220	71, 277	111. 0	43. 2
<b>Far West:</b>					
California.....	7, 814, 230	1, 355, 978	6, 458, 252	476. 3	291. 2
Nevada.....	136, 513	68, 690	67, 823	98. 7	34. 0
Oregon.....	821, 045	199, 118	621, 928	312. 3	180. 1
Washington.....	1, 400, 459	661, 014	739, 445	111. 9	43. 8

<sup>1</sup> Exclusive of appropriations for hospital and sanatoria care.

SOURCE: Public Health Service, Division of State Grants. Mimeographed.

The per capita amounts which States appropriated to their State health departments for 1952 ranged from nearly \$1.58 in New York to less than 14 cents in Missouri. The average per capita amount was about 57 cents. Half the 48 States appropriated more than 49 cents per capita and half appropriated less than that amount.

These per capita appropriations do not include amounts for construction and maintenance of hospitals and sanatoria and for care given in such institutions.

Table 2.12.—Per capita State appropriations to State health departments, fiscal year 1952

Rank	State	1952 per capita <sup>1</sup> (cents)	Rank	State	1952 per capita <sup>1</sup> (cents)
1	New York.....	157.9	27	Idaho.....	45.7
2	Maryland.....	132.8	28	Kentucky.....	44.9
3	Vermont.....	107.6	29	West Virginia.....	44.1
4	Delaware.....	106.5	30	Illinois.....	43.3
5	Connecticut.....	102.9	31	Michigan.....	38.5
6	Georgia.....	96.8	32	Minnesota.....	38.2
7	Nevada.....	85.3	33	Indiana.....	37.8
8	Florida.....	84.8	34	Kansas.....	35.5
9	New Hampshire.....	82.7	35	Oklahoma.....	34.7
10	Rhode Island.....	80.9	36	Colorado.....	33.9
11	Virginia.....	80.8	37	North Dakota.....	33.4
12	New Mexico.....	74.8	38	Arkansas.....	33.0
13	California.....	73.8	39	Alabama.....	31.8
14	Utah.....	72.1	40	Wisconsin.....	30.5
15	Maine.....	69.8	41	Nebraska.....	27.5
16	Louisiana.....	67.6	42	South Dakota.....	27.4
17	Pennsylvania.....	66.8	43	New Jersey.....	25.1
18	Tennessee.....	64.3	44	Texas.....	24.0
19	Washington.....	58.8	45	Iowa.....	20.7
20	Massachusetts.....	56.1	46	Arizona.....	18.1
21	North Carolina.....	54.4	47	Ohio.....	13.9
22	Oregon.....	53.8	48	Missouri.....	13.7
23	Mississippi.....	53.5			
24	South Carolina.....	50.8		Median.....	49.0
25	Montana.....	47.3		Average.....	56.8
26	Wyoming.....	46.6			

<sup>1</sup> Based on provisional estimates of population for continental United States as of July 1, 1950, Bureau of the Census; Series P-25, No. 50.

SOURCE: Public Health Service, Division of State Grants. Mimeographed.



State financial support of local health units more than tripled in the four-year period 1947-51, while Federal funds have remained almost constant. The latter actually declined if the decreased value of the dollar is taken into account.

For all States and other jurisdictions combined, the local health units' expenditures of Federal grants administered by the Public Health Service declined slightly from 1947 to 1951. Local expenditures of Federal grants from the Children's Bureau increased somewhat during this time.

Local funds spent for the programs of local health units doubled during the period. Amounts furnished by private agencies more than tripled.

Table 2.13.—Amounts expended in local health units by source of funds, selected years, 1947, 1949, 1951

Source of funds	1947	1949	1951
All sources <sup>1</sup> -----	\$79, 876, 248	\$119, 072, 580	\$160, 163, 490
State-----	10, 270, 597	27, 167, 203	34, 605, 277
Local-----	53, 754, 050	75, 187, 589	107, 354, 271
Private agencies-----	671, 100	1, 207, 346	2, 238, 304
Federal-----	15, 180, 501	15, 510, 442	15, 964, 638
Public Health Service-----	11, 995, 198	11, 657, 526	11, 692, 379
Children's Bureau-----	3, 185, 303	3, 852, 916	4, 272, 259

<sup>1</sup> Includes the District of Columbia and the territories.

SOURCE: Annual expenditure reports submitted to the Public Health Service, Division of State Grants, by State

health departments and other State agencies participating in grant programs administered by the Public Health Service.

In 1950 about twenty percent of the population lived in areas without full-time local health services. Nearly forty-five percent of the more than 3,000 counties of the United States were without the services of a full-time public health organization.

Table 2.14.—Extent of coverage of the country by health organizations of designated types providing full-time local health services, August 1950

Type of area	Full-time health organizations		Counties		Population	
	Number	Percent	Number	Percent	Number	Percent
All areas.....			3, 071	100. 0	149, 855, 592	100. 0
Organized.....	1, 301	100. 0	1, 734	56. 5	118, 782, 235	79. 3
Single county.....	648	49. 8	648	21. 1	44, 190, 768	29. 5
City health department.....	268	20. 6	<sup>1</sup> 10	. 4	45, 997, 531	30. 7
Local health district.....	320	24. 6	793	25. 8	15, 969, 677	10. 7
State health district (actual service).....	65	5. 0	283	9. 2	12, 624, 259	8. 4
Unorganized <sup>2</sup> .....			1, 337	43. 5	31, 073, 357	20. 7

<sup>1</sup> These 10 counties are served by city health departments. The cities involved are: San Francisco, Denver, New Orleans, and Philadelphia, each of which is coterminous with a county; New York City which comprises 5 counties; and Boston, Chelsea, Revere, and Winthrop, which cover the county of Suffolk.

<sup>2</sup> Included here are areas served by State health districts organized primarily for supervisory and advisory service.

Such districts number 47 and cover 354 counties (11.5 percent) having a population of 10,290,909 (6.8 percent).

SOURCE: Public Health Service. Unpublished data from Division of State Grants.

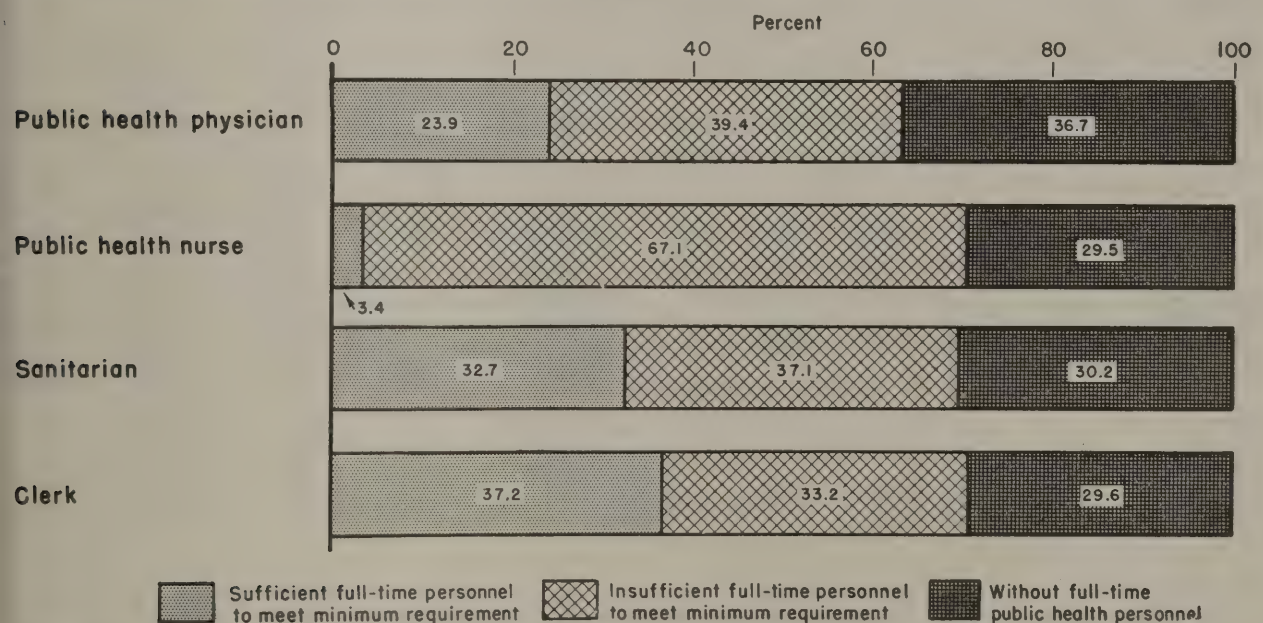
1950 Census of Population, Preliminary Counts, Series PC-2.



Many local areas lack sufficient health department personnel to meet minimum personnel requirements for full-time public health services.

In 1950 only 24 percent of the United States population was living in areas that had enough full-time public health physicians to meet recommended standards. Full-time services of sanitarians were lacking for nearly 70 percent of the population and full-time nurses by over 95 percent of the population.

Chart 2C.—The percent of the population with enough full-time health personnel to meet recommended standards in 1950.



Source: Public Health Service

Table 2.15.—Percentage of total population of each State residing in areas with sufficient full-time health agency personnel of designated classes to meet minimum staffing requirements, December 1950

State	Total population	Percent of total State population having sufficient personnel to meet recommended minimum requirements <sup>1</sup>			
		Physicians	Nurses	Sanitation personnel	Clerks
United States.....	149, 855, 592	23. 9	3. 4	32. 7	37. 2
Alabama.....	3, 052, 754	37. 9	0	50. 1	37. 5
Arizona.....	745, 259	0	5. 5	15. 4	1. 2
Arkansas.....	1, 901, 631	18. 1	5. 3	13. 4	23. 8
California.....	10, 490, 070	69. 0	6. 2	73. 1	77. 7
Colorado.....	1, 318, 048	20. 7	7. 0	50. 1	46. 7
Connecticut.....	1, 995, 263	29. 9	18. 4	15. 6	22. 3
Delaware.....	316, 609	12. 9	12. 9	34. 7	34. 7
District of Columbia.....	797, 670	100. 0	0	100. 0	100. 0
Florida.....	2, 743, 736	46. 1	2. 2	43. 4	41. 9
Georgia.....	3, 433, 190	25. 6	20. 5	34. 4	39. 4
Idaho.....	585, 092	19. 5	0	0	0
Illinois.....	8, 684, 513	7. 8	1. 3	3. 9	9. 2
Indiana.....	3, 921, 213	3. 6	10. 9	18. 3	10. 9
Iowa.....	2, 612, 598	1. 6	0	1. 6	1. 6
Kansas.....	1, 894, 390	16. 3	0	37. 6	13. 1
Kentucky.....	2, 921, 708	40. 9	. 8	37. 7	65. 8
Louisiana.....	2, 667, 022	21. 7	. 2	64. 1	64. 0
Maine.....	910, 456	29. 1	8. 4	11. 9	8. 4
Maryland.....	2, 324, 243	32. 7	7. 6	53. 3	89. 7
Massachusetts.....	4, 664, 284	5. 6	3. 8	28. 0	4. 6
Michigan.....	6, 308, 794	16. 1	0	45. 6	45. 5
Minnesota.....	2, 968, 135	10. 4	0	0	17. 4
Mississippi.....	2, 173, 373	70. 2	2. 1	41. 6	69. 3
Missouri.....	3, 933, 636	6. 3	0	39. 3	26. 1
Montana.....	587, 337	12. 6	1. 7	3. 7	14. 3
Nebraska.....	1, 318, 079	2. 6	0	32. 4	2. 6
Nevada.....	158, 283	61. 4	0	31. 3	0
New Hampshire.....	529, 880	0	0	0	0
New Jersey.....	4, 822, 528	1. 0	15. 0	29. 8	25. 7
New Mexico.....	677, 152	47. 0	0	0	40. 3



Table 2.15.—Percentage of total population of each State residing in areas with sufficient full-time health agency personnel of designated classes to meet minimum staffing requirements, December 1950—Continued

State	Total population	Percent of total State population having sufficient personnel to meet recommended minimum requirements <sup>1</sup>			
		Physicians	Nurses	Sanitation personnel	Clerks
New York.....	14, 741, 445	5. 4	5. 0	17. 0	77. 8
North Carolina.....	4, 038, 814	65. 2	6. 4	28. 6	28. 9
North Dakota.....	617, 965	6. 3	-----	31. 0	4. 0
Ohio.....	7, 899, 095	24. 3	-----	44. 6	31. 4
Oklahoma.....	2, 223, 650	45. 0	-----	31. 6	10. 3
Oregon.....	1, 512, 100	60. 3	-----	25. 7	5. 2
Pennsylvania.....	10, 462, 628	6. 4	-----	26. 9	26. 9
Rhode Island.....	779, 931	0	-----	-----	-----
South Carolina.....	2, 107, 432	46. 6	-----	33. 4	30. 3
South Dakota.....	650, 029	16. 0	-----	16. 0	5. 2
Tennessee.....	3, 282, 271	41. 8	0. 2	28. 5	43. 1
Texas.....	7, 677, 832	15. 7	-----	44. 5	30. 3
Utah.....	686, 797	9. 4	9. 5	38. 9	12. 4
Vermont <sup>2</sup> .....	375, 833	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Virginia.....	3, 270, 322	57. 6	-----	46. 1	47. 5
Washington.....	2, 363, 289	28. 4	3. 1	56. 3	41. 3
West Virginia.....	1, 999, 097	24. 2	-----	6. 7	13. 2
Wisconsin.....	3, 421, 316	12. 6	1. 2	25. 8	27. 5
Wyoming.....	288, 800	16. 4	-----	16. 4	-----

<sup>1</sup> Generally accepted minimum staffing requirements are as follows: 1 public health physician for every 50,000 persons (or 1 for every local health unit, whichever is less); 1 public health nurse for every 5,000 persons; 1 sanitary engineer or sanitarian for every 15,000 persons; 1 clerk for every 15,000 persons. These minimum staffing requirements, developed over the years, represent a consensus of professional judgment.

<sup>2</sup> Vermont has no full-time health organizations rendering local health service.

SOURCE: Clifford H. Greve and Josephine R. Campbell. Public Health Personnel, Facilities, and Services as of Dec. 31, 1950, Public Health Service Publication No. 232, p. 27. (Washington, D. C., May 1952.)

In 1950 it would have cost the Federal Government about \$30 million to help the States and localities provide organized local health services for the entire population of the United States under a bill considered in the Eighty-second Congress. This bill authorized Federal aid on a matching basis varied according to the per capita income in the different States but in no case exceeding two-thirds of the expenditures under a State plan; the bill also provided that the Federal Government would not match any expenditures in excess of an average per capita amount of \$1.50.

For the purposes of this estimate certain tentative criteria were established:

(a) All local health units will meet any minimum population requirements (35,000 wherever possible) by combining into districts

(b) Minimum personnel requirements in relation to population during an initial period will be—

(1) 1 health officer per unit (35,000 persons or more)

(2) 1 public health nurse per 15,000 persons

(3) 1 sanitarian or sanitary engineer per 50,000 persons

These personnel requirements are lower than the accepted standards given in the preceding table because so few areas are able to meet minimum standards that, in order to get a program initiated, tentative criteria must be used.

Table 2.16.—Estimated cost to the Federal Government under the proposed local health-services bill based on State and local expenditures during the fiscal year 1950 in local health units eligible for participation

Region and State	Per capita income 1947-49 <sup>1</sup>	Ratio of per capita income of United States to per capita income of each State	Federal participation percentage <sup>2</sup>	State-local participation percentage	Estimated State-local expenditures <sup>3</sup>	Cost of Federal participation <sup>4</sup>	Cost of program subject to Federal participation <sup>5</sup>
United States.....	\$1, 337	-----	-----	-----	\$58, 514, 007	\$30, 344, 498	\$85, 878, 576
New England.....	1, 428	0. 94	31	69	1, 734, 245	617, 148	2, 027, 624
Central Atlantic.....	1, 561	. 86	29	71	16, 445, 458	6, 562, 716	23, 710, 147
Southeast.....	878	1. 52	51	49	13, 422, 382	12, 138, 491	24, 207, 172
Southwest.....	1, 124	1. 19	40	60	1, 857, 166	1, 303, 425	3, 160, 591
East North Central.....	1, 483	. 90	30	70	12, 168, 234	5, 136, 773	16, 636, 253
West North Central.....	1, 311	1. 02	34	66	1, 528, 002	783, 390	2, 261, 692
Rocky Mountain.....	1, 356	. 99	33	67	1, 069, 345	483, 908	1, 543, 834
Far West.....	1, 560	. 86	29	71	10, 289, 175	3, 318, 674	12, 331, 263
New England:							
Connecticut.....	1, 622	. 82	27	73	433, 264	160, 248	593, 512
Maine.....	1, 115	1. 20	40	60	32, 625	21, 750	54, 375
Massachusetts.....	1, 420	. 94	31	69	1, 178, 101	389, 318	1, 255, 866
New Hampshire.....	1, 200	1. 11	37	63	90, 255	45, 832	123, 871
Rhode Island.....	1, 404	. 95	32	68	(5)	(5)	(5)
Vermont.....	1, 107	1. 21	40	60	(5)	(5)	(5)



Table 2.16.—Estimated cost to the Federal Government under the proposed local health-services bill based on State and local expenditures during the fiscal year 1950 in local health units eligible for participation—Continued

Region and State	Per capita income 1947-49 <sup>1</sup>	Ratio of per capita income of United States to per capita income of each State	Federal participation percentage <sup>2</sup>	State-local participation percentage	Estimated State-local expenditures <sup>3</sup>	Cost of Federal participation <sup>4</sup>	Cost of program subject to Federal participation <sup>5</sup>
Central Atlantic:							
Delaware-----	1,605	.83	28	72	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
District of Columbia-----	1,719	.78	26	74		311,091	1,196,505
Maryland-----	1,426	.94	31	69	2,519,100	1,049,354	3,385,013
New Jersey-----	1,555	.86	29	71	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
New York-----	1,746	.77	26	74	12,247,842	4,303,296	16,551,138
Pennsylvania-----	1,407	.95	32	68	1,294,141	609,008	1,903,149
West Virginia-----	1,026	1.30	43	57	384,375	289,967	674,342
Southeast:							
Alabama-----	798	1.68	56	44	752,111	914,453	1,632,951
Arkansas-----	795	1.68	56	44	215,176	229,319	409,498
Florida-----	1,111	1.20	40	60	2,108,313	1,357,618	3,394,044
Georgia-----	889	1.50	50	50	1,835,671	1,261,926	2,523,853
Kentucky-----	868	1.54	51	49	933,827	769,516	1,508,854
Louisiana-----	942	1.42	47	53	1,038,256	920,718	1,958,974
Mississippi-----	688	1.94	65	35	1,049,821	1,656,522	2,548,495
North Carolina-----	866	1.54	51	49	2,292,913	2,087,660	4,093,450
South Carolina-----	800	1.67	56	44	832,240	1,059,215	1,891,455
Tennessee-----	883	1.51	50	50	614,957	614,957	1,229,914
Virginia-----	1,051	1.27	42	58	1,749,097	1,266,587	3,015,684
Southwest:							
Arizona-----	1,155	1.16	39	61	8,024	5,130	13,154
New Mexico-----	992	1.35	45	55	305,790	250,192	555,982
Oklahoma-----	1,020	1.31	44	56	419,284	329,437	748,721
Texas-----	1,150	1.16	39	61	1,124,068	718,666	1,842,734
East North Central:							
Illinois-----	1,622	.82	27	73	1,318,014	462,727	1,713,804
Indiana-----	1,314	1.02	34	66	590,242	216,588	637,024
Michigan-----	1,452	.92	31	69	4,771,067	2,076,071	6,697,002
Ohio-----	1,457	.92	31	69	4,236,344	1,903,285	6,139,629
Wisconsin-----	1,343	1.00	33	67	1,252,567	478,102	1,448,794
West North Central:							
Iowa-----	1,319	1.01	34	66	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Kansas-----	1,249	1.07	36	64	500,188	281,355	781,543
Minnesota-----	1,257	1.06	35	65	33,155	15,558	44,451
Missouri-----	1,268	1.05	35	65	543,725	268,309	766,596
Nebraska-----	1,331	1.00	33	67	349,936	172,357	522,293
North Dakota-----	1,439	.93	51	69	90,950	40,862	131,812
South Dakota-----	1,360	.98	33	67	10,048	4,949	14,997
Rocky Mountain:							
Colorado-----	1,422	.94	31	69	911,213	405,154	1,306,948
Idaho-----	1,269	1.05	35	65	45,427	24,461	69,888
Montana-----	1,555	.86	29	71	48,738	19,907	68,645
Utah-----	1,206	1.11	37	63	43,923	25,796	69,719
Wyoming-----	1,471	.91	30	70	20,044	8,590	28,634
Far West:							
California-----	1,709	.78	26	74	8,661,019	2,594,540	9,979,000
Nevada-----	1,711	.78	26	74	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Oregon-----	1,509	.89	30	70	356,642	152,847	509,489
Washington-----	1,436	.93	31	69	1,271,514	571,260	1,842,774

<sup>1</sup> Per capita income based on 3-year average for the period 1947-49.

<sup>2</sup> Federal percentage is calculated by multiplying each value in column B by 33½ percent.

<sup>3</sup> State-local expenditures taken from the fiscal report of expenditures for the latest fiscal year for which data were available; generally 1950, but in a few instances 1949.

<sup>4</sup> Cost of program subject to Federal participation is limited by law to \$1.50 per capita regardless of State or local funds expended.

<sup>5</sup> There are no local health units in the State which meet the tentative criteria for participation.

<sup>6</sup> Expenditure reports for New Jersey did not indicate expenditures for individual local health units which met the criteria for participation.

SOURCE: Hearings before the Committee on Interstate and Foreign Commerce on H. R. 274 and H. R. 913, 82d Cong., 1st sess., p. 115 (Washington, D. C., 1951).

Under the Social Security Act the Federal Government shares with States and localities the cost of assistance for four groups of needy persons—the aged, the blind, dependent children, and permanently and totally disabled persons. General assistance programs that provide help for other needy persons are supported from State and local funds. To the extent that funds permit, public assistance agencies undertake to meet medical as well as maintenance needs of recipients.

The \$225 million does not include the cost of all medical services received by recipients of assistance. Little information is available on the extent to which, without charge to assistance funds, these persons received additional medical services from or had their bills met by public hospitals and clinics, private health agencies, county doctors, or private practitioners.

Assistance agencies use various methods of meeting medical costs. Under the four State-Federal programs, amounts are frequently included in money payments to recipients to permit them to pay their own medical bills. Some States, however, pay the suppliers of services—physicians, hospitals, and others—for medical care of recipients or use both methods of payment. Frequently recipients are given money to pay for practitioners' services and medicines, whereas the agency assumes responsibility for paying suppliers direct for more costly services, for example, hospitalization. Prior to October 1950, there was Federal participation only in money payments to recipients. An amendment to the Social Security Act, effective October 1, 1950, permits Federal participation, within maximums on individual payments, for vendor payments for medical care. Not more than \$30–40 million of the \$225 million came from Federal funds.

Under the State-local general assistance programs, payments are usually made directly to the suppliers of medical services.

In a number of States medical expenditures for recipients under the four State-Federal programs are met in whole or part from general assistance funds or from monies specifically appropriated for a medical care program. The estimated expenditures for recipients under each assistance program, therefore, include expenditures from funds appropriated for the specific program and amounts paid from other funds administered by the assistance agency.



Table 2.17.—Estimated expenditures from public assistance funds for medical care of recipients of assistance, by program, fiscal year 1951

Program	Estimated expenditures <sup>1</sup> (thousands of dollars)			Number of recipients during 1951 (thousands)
	Total	Hospitaliza- tion	All other	
Total.....	225,000	60,000	165,000	6,051
Old-age assistance.....	167,700	40,500	127,200	2,786
Aid to dependent children.....	19,400	5,900	13,500	<sup>2</sup> 2,233
Aid to the blind.....	2,900	600	2,300	97
Aid to the permanently and totally disabled.....	7,000	1,800	5,200	69
General assistance <sup>3</sup> .....	28,000	11,200	16,800	<sup>4</sup> 866

<sup>1</sup> Estimated expenditures for each program include funds appropriated specifically for the program and expenditures from other assistance funds for services supplied to recipients of the specified program.

<sup>2</sup> Represents number of individuals in the 651,000 families receiving Aid to dependent children.

<sup>3</sup> Includes expenditures for cases receiving medical care only.

<sup>4</sup> Represents number of individuals in the 395,000 cases receiving general assistance.

SOURCE: Social Security Administration, Bureau of Public Assistance. Unpublished data.

The medical requirements of cases receiving assistance may be expected to vary considerably, depending on the number of persons included in the assistance case, their age and sex, and other selective factors. The proportion of cases needing services, therefore, would not necessarily be the same for the various assistance programs. Within a given type of assistance, however, the proportion of cases needing medical services would not be expected to vary greatly from State to State because the eligibility requirements are somewhat similar, making for broad similarities in the recipient groups. Sharp differences among States, therefore, reflect primarily differences in the types and amount of services for which costs are met from assistance funds, rather than variations in need for services. The data reported by assistance agencies in 20 States in 1946 indicate that recipients do not have equal opportunity to obtain medical assistance in all the States, or often even in different communities within the same State.

The proportion of Old-age assistance cases receiving medical services in the 20 States during a 6-month period in 1946 was 40 percent, and the range among the States was from 84 percent to 6 percent. One-third of the families receiving Aid to dependent children had medical services with one State supplying care for 82 percent of the families and another State for as few as 10 percent. Medical needs were met for somewhat more than one-fourth of the cases receiving Aid to the blind and General assistance. As in the other programs, availability of funds rather than need for services explains to a considerable extent differences among States in the percent of cases receiving care.

There was a corresponding range in the average monthly cost of medical care per assistance case. Data for a more recent period would show higher expenditures, reflecting the increase in the cost of medical care and the Social Security Act Amendments of 1950 providing Federal matching for vendor payments for medical care, but would probably show a similar range among the States in expenditures for this purpose.



Table 2.18.—Public assistance cases receiving medical assistance and average cost, 20 States, 6 months in 1946

State <sup>1</sup>	Percent of cases receiving medical care from assistance funds				Average monthly cost of medical care per case receiving assistance			
	Old-age assistance	Aid to dependent children	Aid to the blind	General assistance	Old-age assistance	Aid to dependent children	Aid to the blind	General assistance
Total—20 States	40. 4	32. 5	25. 7	28. 7	\$3. 63	\$1. 82	\$1. 77	\$2. 51
Maine	83. 8	53. 6	76. 6		6. 53	4. 38	5. 45	
New Hampshire	55. 7	64. 9	41. 4		7. 99	5. 67	6. 38	
Kansas	54. 5	54. 5	54. 6	( <sup>2</sup> )	4. 10	4. 40	3. 98	( <sup>2</sup> )
New Jersey	53. 5	44. 4	35. 8		4. 30	2. 51	2. 02	
Texas	49. 5	17. 0	40. 7		3. 37	. 85	3. 50	
Indiana	47. 7	57. 2	42. 8		3. 29	1. 77	3. 19	
Massachusetts	46. 7	39. 7		33. 2	6. 72	2. 30		3. 37
Illinois	44. 7	40. 9	33. 2		3. 47	2. 84	2. 49	
Connecticut	42. 4	53. 6	( <sup>3</sup> )		12. 08	3. 77	( <sup>3</sup> )	
Minnesota	37. 9	18. 9	15. 8	40. 4	3. 22	1. 65	1. 34	7. 39
Michigan	37. 8	21. 9	21. 0	( <sup>2</sup> )	5. 05	2. 30	2. 32	( <sup>2</sup> )
North Dakota <sup>4</sup>	37. 0	81. 8	( <sup>3</sup> )	59. 6	5. 40	6. 44	( <sup>3</sup> )	10. 69
Wyoming	32. 3	49. 0	( <sup>3</sup> )	19. 7	3. 36	4. 81	( <sup>3</sup> )	6. 63
Oregon	31. 0	34. 9	( <sup>3</sup> )	30. 3	4. 08	3. 75	( <sup>3</sup> )	5. 38
Pennsylvania	30. 1	40. 3	15. 1	33. 2	. 68	1. 00	. 36	. 94
Nebraska	26. 0	21. 0	17. 0		1. 60	1. 28	1. 00	
New Mexico	20. 0	24. 4	13. 0	22. 5	1. 33	2. 04	. 41	2. 46
South Carolina	14. 6	10. 2	6. 9	16. 1	1. 02	. 73	. 73	1. 31
North Carolina	13. 7	10. 7		12. 4	. 96	. 50		. 89
West Virginia	6. 0	11. 3	6. 2	4. 1	. 52	. 83	. 13	. 87

<sup>1</sup> Data for entire State or selected counties in State.

<sup>2</sup> Not available.

<sup>3</sup> Not computed because of small number of cases.

<sup>4</sup> Excludes routine monthly allowances for cases receiving only \$1 for physicians' services and \$1 for drugs.

SOURCE: Ruth White, Medical Care in Public Assistance, 1946, pt. II, Summary Report, Public Assistance Report No. 16, p. 24. Federal Security Agency (Washington, D. C., 1952).

The share of the assistance dollar (excluding nursing-and-convalescent-home care) going for each type of medical care reflects both the proportion of cases getting each type of care and the costliness of the service. Under all programs a relatively large number of cases had physicians' visits, and a substantial amount of the medical dollar was paid to physicians. In Old-age assistance, 27 percent of the cases had visits to or from the doctor during the 6 months, and charges for their visits, plus the cost of surgery for which separate charges were made, accounted for 37 cents out of every dollar of medical expense. In Aid to dependent children, 24 percent of the families had physicians' visits, and the cost of services by physicians represented 43 percent of total expenditures. For recipients in both programs the total cost of care by physicians was larger than any other one type of service.

Drugs also were supplied to a relatively large number of recipients and represent a substantial share of total costs in Old-age assistance and Aid to the blind—30 and 34 cents, respectively, of each dollar spent. For Aid to dependent children and General assistance, medicines account for only 17 or 18 cents of each dollar.

Because hospital care is costly, expenditures for this service amounted to about 20 cents out of every dollar for Old-age assistance and Aid to dependent children cases, even though the number of cases hospitalized was small—3.4 and 4.2 percent, respectively. Relatively more General assistance cases were hospitalized—4.5 percent—and 41 percent of the total expenditures for medical care under the program were incurred for this purpose. In Aid to the blind, only 13 cents out of every dollar was chargeable to hospital care for the 2 percent of cases hospitalized during the 6 months.

Except for dental care for Aid-to-dependent-children families, no other single service accounted for as much as 10 percent of the total medical expenditures for any program.



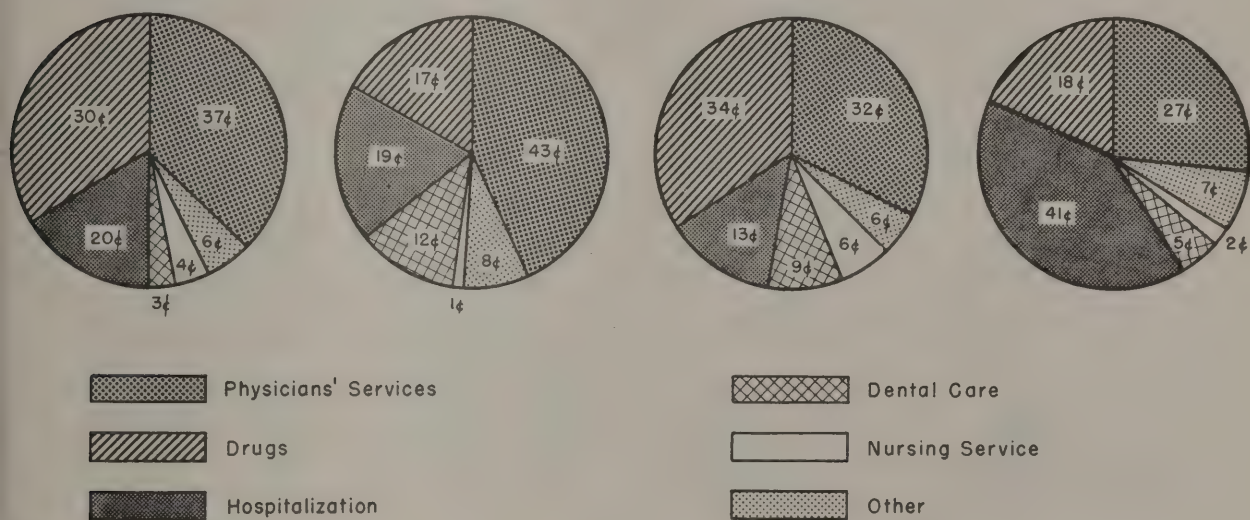
**Chart 2D.—Distribution of the medical assistance dollar, by type of service, during six months in 1946.**

OAA (20 States)

ADC (20 States)

AB (18 States)

GA (12 States)



Source: Federal Security Agency

In general, services by physicians were supplied for recipients of assistance more frequently than any other type of service. More than a fourth of the aged recipients and almost one-fourth of the Aid-to-dependent-children families had physicians' visits during a 6-month period in 1946. Other assistance cases were somewhat less likely to have visits to a doctor.

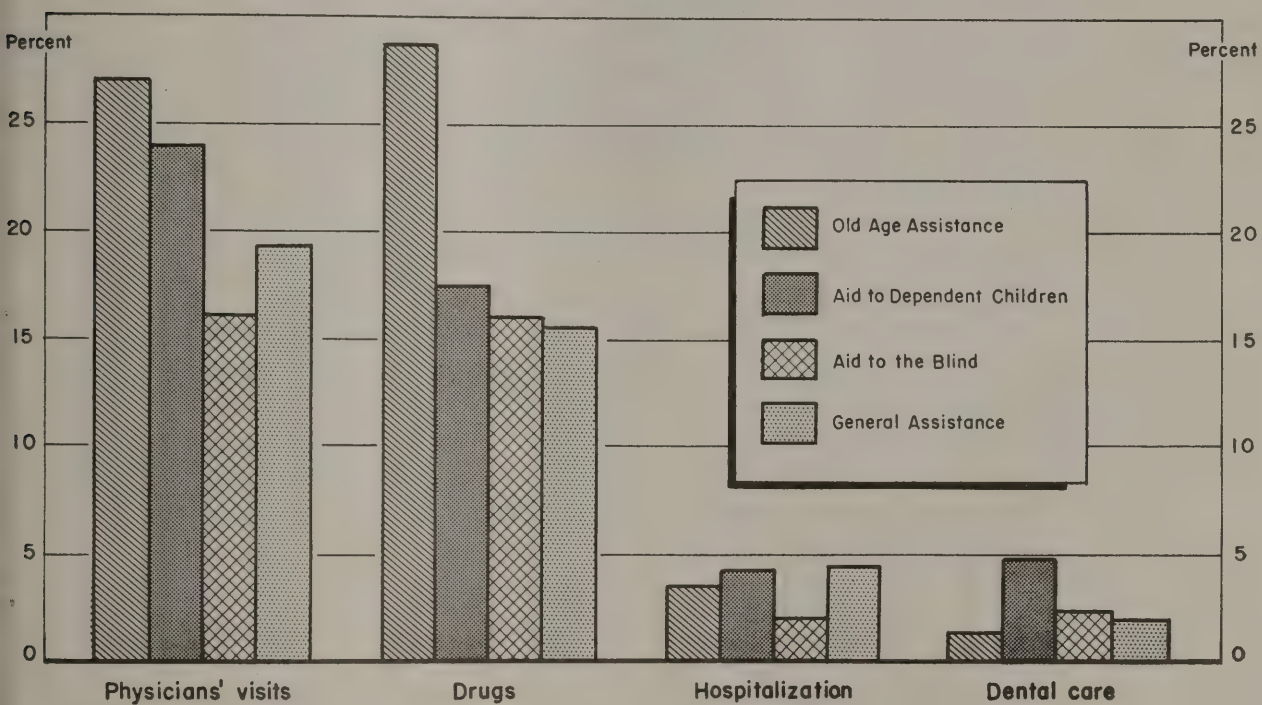
Because of the extent of chronic illness among old people, it is not surprising that a relatively large number of the cases receiving Old-age assistance required drugs (29 percent) frequently on a continuing basis. In most States the number of recipients for whom medicine was supplied and the number with physicians' services were closely related.

Hospitalization was provided for more than 3 percent of the aged recipients and more than 4 percent of the families receiving Aid to dependent children and of the General assistance cases. In Old-age assistance and General assistance the length of stay in the hospital was longer than for Aid to dependent children. For the latter group, tonsillectomies and certain other types of operations often performed on children probably account for some of the relatively few days in the hospital.

Assistance agencies were somewhat more likely to supply dental care for Aid-to-dependent-children families than for other types of cases, although the assistance agency met this cost for less than 5 percent of these families.



Chart 2E.—Percent of public assistance cases receiving specified medical services, by program, during six months in 1946.



Source: Federal Security Agency

Obviously, the average cost of services per medical care case is significantly influenced by the proportion of cases receiving nursing-home care.

Expenditures for nursing-home care represented 80 percent of total medical costs in Connecticut and from 53 to 45 percent of the total in New Hampshire, Massachusetts, Oregon, and New Jersey. For all States, total costs chargeable to nursing-home care were high in relation to the number of recipients receiving this type of care. The average cost per medical care case is, of course, higher for all States when nursing-home care is included, but the difference is considerable only in States that made substantial expenditures for this service. In Connecticut the cost per medical care case, including nursing-home care, was \$161 as compared with about \$37 when such costs are excluded. In five States<sup>1</sup> the range in the average cost of all services was from \$83 to \$73. The range for these States, excluding the cost of nursing-home care, was from \$70 to \$39.

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<sup>1</sup> North Dakota, Massachusetts, New Hampshire, Michigan, and Oregon.



Table 2.19.—Average expenditures for medical services per public assistance case receiving service, by program and State, 6-month period, 1946

[Includes cost of nursing—and convalescent-home care]

State <sup>1</sup>	Average cost per case receiving services						
	Old-age assistance		Aid to dependent children		Aid to the blind (amount)	General assistance (amount)	Medical care only (amount)
	Amount	Rank	Amount	Rank			
Total <sup>2</sup> -----	\$50. 50	-----	\$28. 32	-----	\$38. 68	\$31. 54	( <sup>3</sup> )
Connecticut -----	161. 20	1	36. 43	12	( <sup>4</sup> )	-----	-----
North Dakota -----	<sup>5</sup> 82. 72	2	40. 61	8	( <sup>4</sup> )	79. 30	\$78. 16
Massachusetts -----	79. 30	3	30. 91	14	-----	44. 19	77. 98
New Hampshire -----	79. 26	4	44. 86	5	( <sup>4</sup> )	-----	-----
Michigan -----	73. 78	5	52. 44	1	60. 57	<sup>2</sup> 54. 59	141. 63
Oregon -----	73. 49	6	52. 35	2	( <sup>4</sup> )	63. 71	122. 39
Wyoming <sup>6</sup> -----	57. 73	7	50. 02	3	( <sup>4</sup> )	69. 13	139. 44
West Virginia <sup>6</sup> -----	49. 24	8	40. 12	9	( <sup>4</sup> )	55. 63	49. 56
Minnesota -----	48. 65	9	46. 78	4	( <sup>4</sup> )	71. 52	113. 68
New Jersey -----	48. 23	10	29. 05	16	30. 90	-----	-----
Illinois -----	44. 38	11	34. 88	13	41. 90	-----	-----
Maine -----	44. 24	12	43. 78	6	40. 95	-----	-----
Kansas -----	40. 32	13	39. 01	10	41. 94	73. 64	-----
North Carolina -----	39. 11	14	23. 69	17	-----	25. 16	29. 31
South Carolina -----	38. 90	15	38. 81	11	( <sup>4</sup> )	34. 35	26. 61
Texas -----	38. 85	16	22. 75	18	48. 27	-----	-----
Indiana -----	38. 75	17	16. 19	19	42. 19	-----	-----
New Mexico -----	36. 84	18	42. 95	7	( <sup>4</sup> )	42. 36	60. 94
Nebraska -----	34. 29	19	30. 72	15	( <sup>4</sup> )	-----	-----
Pennsylvania -----	12. 44	20	12. 06	20	13. 35	11. 40	-----

<sup>1</sup> Data for entire State or selected counties in State.  
<sup>2</sup> Totals represent 20 States, old-age assistance and aid to dependent children; 18 States, aid to the blind; and 10 States, general assistance (excluding Kansas and Michigan, for which complete data were not available).  
<sup>3</sup> Data not available.  
<sup>4</sup> Not computed; base too small.  
<sup>5</sup> Excludes routine monthly allowances of \$1 for physicians' services and \$1 for drugs.

<sup>6</sup> Pennsylvania and West Virginia made no expenditures for nursing- and convalescent-home care from assistance funds; data for this service were not available for Nebraska and incomplete for Wyoming.  
SOURCE: Ruth White, Expenditures for Medical Services in Public Assistance, 1946. Social Security Bulletin, vol. 15, No. 8, p. 8, table 1; p. 12, table 3 (Washington, D. C., August 1952).

The relative number of Old-age assistance cases receiving physicians' services, the average number of visits per case, and the average cost per visit are shown in the table for each of 20 States. Included as physicians' visits are all home, office, hospital, and clinic visits for which costs were met from assistance funds. More than one-fourth of the recipients had one or more visits to and from a doctor during the 6 months. In five States more than one-third, and in eight additional States from one-fourth to one-third, saw a doctor at least once during the 6 months. The proportions ranged among the States from 44 percent in Indiana to less than 4 percent in West Virginia and 0.1 percent in South Carolina.

Although there was extremely wide variation in the proportion of cases receiving physicians' visits, among the cases having such visits there was a considerable degree of uniformity in the average number of visits per patient. In the 20 States combined, recipients seeing a doctor had an average of 7.2 visits in the 6 months. For 10 States in the middle of the range the averages were from 6.5 to 8.5 visits per patient. In the five States ranking highest (excluding North Dakota) in the range, the averages were from 7.5 to 10.4.

The average number of visits per case receiving assistance was 2.1 for the 6-month period or more than four visits annually.



**Table 2.20. Percent of Old-age assistance cases receiving physicians' visits, average expenditures per case and per visit, and average number of visits, by State, 6-month period, 1946**

State <sup>2</sup>	Cases receiving physicians' visits <sup>1</sup> during 6-month period				All assistance cases	
	Percent of all assistance cases <sup>3</sup>	Average cost per case	Average number of visits	Average cost per visit	Average cost per assistance case	Average number of visits per assistance case during 6-month period <sup>4</sup>
Total 20 States.....	27. 0	\$18. 30	7. 2	\$2. 53	\$0. 88	<sup>5</sup> 2. 1
Indiana.....	43. 8	17. 40	8. 3	2. 10	1. 36	3. 9
New Hampshire.....	39. 5	15. 15	8. 0	1. 90	1. 08	3. 4
Illinois.....	39. 1	13. 64	7. 5	1. 81	. 93	3. 1
Kansas.....	38. 1	17. 45	8. 9	1. 99	1. 24	3. 8
Maine.....	36. 3	<sup>6</sup> 26. 92	10. 4	2. 76	<sup>6</sup> 1. 72	4. 0
Massachusetts.....	31. 2	14. 56	5. 4	2. 58	. 81	1. 8
Michigan.....	31. 2	19. 62	7. 7	2. 55	<sup>6</sup> 2. 41	( <sup>7</sup> )
New Jersey.....	30. 9	15. 48	7. 2	2. 16	. 80	2. 4
Connecticut.....	28. 2	14. 80	5. 4	2. 74	. 74	1. 6
Minnesota.....	26. 2	15. 09	7. 7	1. 95	. 69	2. 1
Pennsylvania.....	25. 3	8. 16	6. 1	1. 34	. 38	1. 7
Texas.....	24. 7	14. 23	6. 9	2. 07	. 62	1. 8
Wyoming.....	24. 5	17. 15	7. 2	2. 39	. 76	1. 9
North Dakota <sup>8</sup> .....	17. 6	22. 53	15. 2	1. 58	. 70	( <sup>7</sup> )
Oregon.....	17. 6	14. 91	9. 3	1. 31	. 47	1. 7
Nebraska.....	15. 6	13. 12	4. 9	2. 68	. 37	. 8
New Mexico.....	13. 2	11. 83	5. 5	2. 14	. 28	. 8
North Carolina.....	8. 8	<sup>6</sup> 30. 34	7. 3	2. 64	<sup>6</sup> . 48	( <sup>7</sup> )
West Virginia.....	3. 8	15. 17	7. 9	1. 91	. 10	. 3
South Carolina.....	. 1	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>10</sup> )	( <sup>11</sup> )

<sup>1</sup> Includes clinic visits and hospital visits if a separate charge was made for such visits; does not include surgery when charged separately.

<sup>2</sup> Data for entire State or selected counties in State.

<sup>3</sup> Based on number of different cases receiving assistance during 6-month period.

<sup>4</sup> Based on average monthly number of cases receiving assistance during 6-month period.

<sup>5</sup> Total represents 17 States; excludes 3 States (Michigan, North Dakota, North Carolina) for which complete data were not available.

<sup>6</sup> Includes cost of some drugs supplied by physicians.

<sup>7</sup> Data not available.

<sup>8</sup> Represents cases receiving visits for which costs were met on a postpayment basis; excludes visits with costs met from routine or estimated allowances.

<sup>9</sup> Not computed; base too small.

<sup>10</sup> Less than \$0.005.

<sup>11</sup> Less than 0.05 visits.

SOURCE: Ruth White, Expenditures for Medical Services in Public Assistance, 1946. Social Security Bulletin, vol. 15, No. 8, p. 49 (Washington, D. C.), August 1952.

In the 18 States for which the data are available, about 1 in 30 Old-age assistance cases was hospitalized at some time in the 6 months' period. Some of the cases had more than one spell of hospitalization. There was an extremely wide range in the proportion of assistance cases receiving hospitalization. In three States, more than 7 percent were hospitalized. Under the very limited medical assistance programs in North Carolina and South Carolina, hospital costs were paid for very few aged recipients. In the rest of the 18 States, the range was from about 2 to more than 7 percent.

A considerable degree of uniformity existed among the States in the average number of days in the hospital per case hospitalized. In 18 States combined, the average was 26 days. In most States the average ranged between 21 and 28 days. Oregon's hospital care averaged about 34 days; North Dakota's nearly 41. Only New Mexico had an average of less than 14. Although the average for the 18 States combined was 26 days, three-fifths of the patients had less than 20 days and probably for at least two-thirds the length of stay was less than 26 days. In all States, data on average number of days in the hospital were weighted by cases spending extremely long periods there—sometimes 100–180 days within the 6-month period.

Another and perhaps simpler measure of the amount of services supplied is obtained by spreading total services over the entire caseload. In the 18 States combined, assistance cases averaged nine-tenths of a day in the hospital during the 6 months or 1.8 days per recipient per year. If data for North Carolina and South Carolina and New Jersey are excluded from consideration the median State among the remaining 15 States supplied, on an annual basis nearly 2.5 days' care per assistance case.

Striking similarity is to be found in the average amount paid per day in the hospital. In general, the average ranged from \$4 to \$5 per day.

Doubtless in most States and localities the amounts paid failed to cover the cost of the services furnished. At the time the study was made, hospitals throughout the country were finding it necessary to increase rates for private patients and were pressing for higher payments for services to recipients of assistance and other needy groups.

In spite of the low per diem rates in effect in 1946, hospital bills for aged recipients were sizable. Per case receiving hospitalization, payments were \$100, or even more, in nine of the 16 States for which data can be computed.



Table 2.21.—Percent of Old-age assistance cases receiving hospitalization, average expenditures per case and per day's care, and average number of days' care, by State, 6-month period, 1946

State <sup>1</sup>	Cases receiving hospitalization during 6-month period				All assistance cases	
	Percent of all assistance cases <sup>2</sup>	Average cost per case	Average number of days' care	Average cost per day	Average monthly cost per assistance case	Average number of days' care per assistance case during 6-month period <sup>3</sup>
Total 18 States <sup>4</sup> .....	3.4	\$122.36	26.1	\$4.68	\$0.73	0.9
North Dakota .....	7.4	167.93	40.9	4.20	2.21	3.1
Wyoming .....	7.4	106.92	20.9	5.13	1.43	1.7
New Hampshire .....	7.2	117.98	28.3	4.17	1.53	2.2
Minnesota .....	5.9	99.73	22.1	4.51	1.03	1.4
Kansas .....	4.8	88.49	23.1	4.21	.79	1.2
Massachusetts .....	4.6	115.90	25.8	4.49	.98	1.3
Connecticut .....	3.9	88.43	21.6	4.10	.62	1.0
Illinois .....	3.8	154.58	30.5	5.07	1.04	1.2
Indiana .....	3.4	127.39	25.9	4.91	.77	.9
Oregon .....	3.0	156.25	34.4	4.69	.85	1.1
Nebraska .....	2.8	99.72	25.8	3.87	.50	.8
Maine .....	2.4	69.87	25.3	2.77	.30	.6
West Virginia .....	2.2	88.32	20.2	4.37	.34	.5
Michigan .....	2.1	139.93	24.7	5.66	.54	.6
New Mexico .....	2.0	55.45	12.8	4.33	.20	.3
New Jersey <sup>5</sup> .....	1.5	148.32	27.6	5.38	.37	.4
North Carolina .....	.4	( <sup>6</sup> )	( <sup>6</sup> )	2.60	.04	.1
South Carolina .....	.3	( <sup>6</sup> )	( <sup>6</sup> )	2.42	.06	.1

<sup>1</sup> Data for entire State or selected counties in State.<sup>2</sup> Based on number of different cases receiving assistance during 6-month period.<sup>3</sup> Based on average monthly number of cases receiving assistance during 6-month period.<sup>4</sup> Excludes Pennsylvania and Texas, which did not provide hospitalization from assistance funds.<sup>5</sup> Hospitalization costs not met from assistance funds in most counties.<sup>6</sup> Not computed; base too small.

SOURCE: Ruth White, Expenditures for Medical Services in Public Assistance, 1946. Social Security Bulletin, vol. 15, No. 8, p. 58 (Washington, D. C., August 1952).

The term nursing-home care is used here to include care in both nursing and convalescent homes. In some instances, homes that have been considered nursing homes might more appropriately have been classified as homes for domiciliary care. Moreover, the borderline between convalescent homes and hospitals may not have been drawn at the same point in all instances.

Of the 20 States participating in the study, two—Pennsylvania and West Virginia—did not provide nursing-home care from assistance funds. Although Nebraska provided this type of care, the data were not reported. In the other 17 States one Old-age assistance recipient in 40 received nursing-home care during the 6 months. Connecticut's proportion was more than 1 in 10 and New Hampshire's 1 in 12. On the other hand, in each of the Carolinas only 1 recipient in 1,000 was reported as receiving such care.

For the most part, recipients in the nursing homes were receiving long-time care. In the 17 States providing such care the average number of months' care in the 6-month period was 4.5. North Dakota reported an average stay of 5.1 months. In Minnesota, on the other hand, the average was 2.7 months.

Nursing-home care, which includes maintenance costs as well as nursing and other medical services, is expensive even in homes that do not meet high standards. Unquestionably the homes in which recipients of Old-age assistance were living ranged from homes of acceptable quality, such as nursing-care institutions, to homes that were poorly equipped and operated. In the 17 States the average monthly cost per case receiving nursing-home care was \$65. In Connecticut the monthly cost was \$118 and in Michigan \$84. In only three States for which unit costs could be computed was the cost below \$50, the maximum amount of a monthly payment subject to Federal financial participation. Differences in monthly costs probably reflect differences in the types of services provided as well as in the quality of the services. Since 1946, costs of care in nursing homes have risen substantially.

State agencies reported that, although there is great need among aged recipients for nursing-home care, they are at a disadvantage in competing for the limited accommodations available because of high cost of the care and because of provisions in some homes restricting admission to persons of a particular race or religious affiliation.



**Table 2.22.—Percent of Old-age assistance cases receiving nursing and convalescent-home care, average expenditures per case and per month's care, and average number of months' care, by State, 6-month period, 1946**

State	Cases receiving nursing- and convalescent- home care during 6-month period				Average monthly cost per assistance case
	Percent of all assistance cases <sup>2</sup>	Average cost per case	Average number of months' care	Average cost per month	
Total 17 States <sup>3</sup>	2. 5	\$290. 49	4. 5	\$64. 72	\$1. 30
Connecticut	10. 4	525. 76	4. 5	117. 85	9. 66
New Hampshire	8. 5	257. 71	4. 3	60. 20	3. 97
Massachusetts	5. 7	339. 03	4. 9	69. 72	3. 56
Maine	3. 9	306. 05	5. 0	61. 35	2. 12
New Jersey	3. 7	341. 22	4. 4	76. 75	2. 12
Oregon	3. 7	279. 55	4. 7	59. 19	1. 84
North Dakota	2. 6	253. 04	5. 1	48. 01	1. 12
Michigan	2. 4	321. 54	3. 8	84. 28	1. 37
Kansas	2. 1	188. 43	4. 2	45. 90	. 74
Texas	1. 9	184. 06	4. 9	37. 50	. 60
Minnesota	1. 8	158. 75	2. 7	59. 73	. 48
Illinois	1. 6	228. 24	4. 4	51. 99	. 62
Wyoming	<sup>4</sup> 1. 5	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	<sup>4</sup> . 27
Indiana	. 8	257. 66	3. 9	66. 78	. 39
New Mexico	. 4	( <sup>5</sup> )	( <sup>5</sup> )	63. 66	. 14
North Carolina	. 1	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	. 04
South Carolina	. 1	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	. 02

<sup>1</sup> Data for entire State or selected counties in State.<sup>2</sup> Based on number of different cases receiving assistance during 6-month period.<sup>3</sup> Excludes Pennsylvania and West Virginia, which did not provide nursing- and convalescent-home care from assistance funds, and Nebraska, for which data on such care were not available.

Data incomplete.

<sup>5</sup> Not computed; base too small.

SOURCE: Ruth White, Expenditures for Medical Services in Public Assistance, 1946. Social Security Bulletin, vol. 15, No. 8, p. 62 (Washington, D. C., August 1952).

Table 2.23.—Fact Sheet on Federal-State Vocational Rehabilitation Program

The  
State-Federal  
Program

Provides medical and psychiatric examinations, psychological tests, counseling and guidance, training, physical restoration (including artificial appliances), maintenance, transportation, occupational tools and equipment, placement and job follow-up.

Administered by 88 State rehabilitation agencies—36 of these serve only the visually disabled.

Financed wholly by Federal government for administration, guidance and placement; 50-50 by State and Federal governments for case services.

Total program costs, fiscal year 1952..... \$32.6 million

Federal participation..... 22.1 million

State participation..... 10.5 million

Total number served, fiscal year 1952..... 228, 480

Total number rehabilitated, fiscal year 1952..... 63, 632

**Facts About 66,193 Rehabilitants of 1951**

WHO  
were they?

2 out of 3 were males.

6 out of 7 were white.

21 years was their average age at time of disablement.

33 years was their average age at time of acceptance.

HOW  
did they  
become disabled?

56 percent from disease.

30 percent from accidents.

14 percent from congenital causes.

WHO  
referred  
them?

26 percent came from doctors, hospitals, and health agencies.

16 percent from welfare sources.

12 percent applied directly to the State rehabilitation agencies.

10 percent were referred by educational institutions.

10 percent were referred by interested associates, friends, relatives and public spirited citizens.

10 percent were referred by State Employment Service offices.

3 percent were referred by State Workmen's Compensation agencies.

13 percent referred by other agencies or persons.

HOW  
were they  
situated  
financially?

Three-fourths were unemployed when they were accepted for rehabilitation; the remainder were in jobs that were unsuitable, temporary or unsafe.

1 out of 8 had never worked.

Nearly one-half were dependent upon their families.

1 out of 8 were on relief.

1 in 12 were living on insurance payments, usually of a temporary nature.

More than two-fifths were married and had family responsibilities.

Nearly one-half had 1 or more dependents to support.



- 30 percent impairments of arms, legs, back, etc.
- 12 percent had amputations of extremities.
- 9 percent had pulmonary tuberculosis (arrested).
- 7 percent were hard of hearing.
- 2 percent were deaf.
- 6 percent were blind.
- 6 percent had other visual defects.
- 5 percent were mentally retarded or had other mental or nervous disorders.
- 2 percent had epilepsy.
- 4 percent were cardiacs.
- 17 percent had other disabilities (multiple sclerosis, arthritis, diabetes, chronic bronchitis, goiter, hernia, genital disorders, kidney disorders, neoplasms).

WHAT  
were their  
disabilities?

- In addition to guidance, counseling and placement:
- 40 percent received physical restoration services.
  - 28 percent were given training.
  - 8 percent received both physical restoration and training.
  - 2 percent received other services.
  - 22 percent received guidance, counseling and placement only.

WHAT  
services  
did they  
receive?

	<i>Average per person receiving specified type of service</i>
Medical and psychiatric examinations.....	\$12. 29
Psychological examinations.....	13. 72
Transportation for diagnostic services.....	10. 44
Surgery and treatment.....	121. 67
Prosthetic appliances.....	112. 12
Hospital and convalescent care.....	149. 55
Training and training materials.....	258. 28
Maintenance and transportation.....	262. 70
Occupational tools, equipment and licenses.....	195. 78
Equipment for business enterprises.....	305. 06

HOW  
much did it cost?

(Note: The above costs represent only the costs to the rehabilitation agencies. Some services may have been obtained free of charge from available facilities or may have been paid for, wholly or in part, by other organizations, interested individuals or the client himself. Excludes costs of administration, counseling, guidance and placement.)

- 31 percent became skilled or semiskilled workers.
- 20 percent went into clerical or sales occupations.
- 15 percent went into service work.
- 9 percent went into professional, semiprofessional or managerial fields.
- 8 percent became agricultural workers.
- 8 percent went into unskilled occupations.

WHAT  
kinds of jobs did  
they take?

- Estimated annual earnings of persons rehabilitated in 1951:
- Before rehabilitation—\$16 million.
  - After rehabilitation—\$116 million.
  - Increase of 600 percent.
- Estimated Federal income taxes paid:
- \$9.2 million the first year after rehabilitation.

DID  
rehabilitation pay?

### 3. INDUSTRIAL HEALTH AND WORKMEN'S COMPENSATION

Although a few employers developed programs to protect the health of their workers as early as the 1890's, it was the passage of workmen's compensation laws that stimulated the development of health services in industry. By 1920 all but six States had passed such legislation; in 1948, all States were covered.

The purpose of health programs in industry is to protect, improve, and maintain the health of workers, thereby conserving manpower, increasing efficiency and productivity, and minimizing illness, for the benefit of employees and employers alike. Many years ago, these programs were confined solely to the control of the working environment and the treatment of occupational disabilities. Today, they often embrace the total health of the worker and provide broad preventive health services. The prevention of disease and injury and the promotion of health is accomplished through medical supervision over materials, processes, and environments; through employee health appraisals and health education; through prompt provision of care following industrial accidents or disease; and through emergency care and treatment of nonoccupational illnesses at an early stage, with referral to private physicians for further care.

Almost all large manufacturing and many large nonmanufacturing plants maintain in-plant health services through the employment of full-time nurses and of physicians who spend full or part time at the plant. These services are less widely available in smaller establishments. Smaller plants usually have arrangements under which one or more physicians have agreed to come to the plant when called to care for emergency cases. Some of these "on call" physicians also make pre-employment examinations.



Table 3.1.—Number and percentage distribution of surveyed companies in each specified size group reporting available services by physician or nurse, 1950

Size group (number of employees)	Number of companies <sup>1</sup> in survey	Physician						Registered graduate nurse	
		Full-time		Part-time		Call basis			
		Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
All companies <sup>2</sup> -----	3, 589	172	4. 8	613	17. 1	1, 725	48. 1	1, 023	28. 5
1-250 -----	1, 901	9	. 5	69	3. 6	780	41. 0	63	3. 3
251-500 -----	617	13	2. 1	94	15. 2	376	60. 9	204	33. 1
501-1,000 -----	466	24	5. 2	135	29. 0	274	58. 9	279	60. 0
1,001-2,500 -----	356	31	8. 7	185	52. 1	194	54. 6	289	81. 4
2,501 and over -----	200	92	45. 5	125	61. 9	85	42. 1	179	88. 6

<sup>1</sup> Based on a 1951 survey of 3,589 member companies with 3.3 million employees made by the National Association of Manufacturers. The companies that responded to the questionnaire included factory, office, and executive personnel and represented more than 22 percent of the average number of employees in manufacturing establishments during 1950.

<sup>2</sup> Total includes companies which did not report number of persons employed.

SOURCE: George W. Bachman and Associates. Health Resources in the United States, p. 245. Brookings Institution (Washington, D. C., 1952).

The costs of in-plant health, medical, and safety programs vary considerably, depending upon the number of employees, the type of industry, and other factors. According to a study by the National Association of Manufacturers of 3,589 member companies with 3.3 million employees, the costs of such programs in 1950 varied by size of establishment from \$45 per employee in plants having less than 250 employees to \$16 in those having over 5,000 employees. The cost of the safety programs alone also declined as the number of employees increased, ranging from \$13 per employee in establishments of 250 to 500 to \$4 in the largest.

There is wide variation among companies as to the methods used in arriving at the costs of health, medical, and safety programs. For this reason, the cost figures are probably understated substantially.



Table 3.2.—Companies reporting cost data on health, medical, and safety programs, and average per capita cost, by size of plant, 1950

Size group	Health, medical, and safety programs		Safety program <sup>1</sup>	
	Number of companies <sup>2</sup> reporting	Per capita cost	Number of companies reporting	Per capita cost
All companies <sup>3</sup> .....	1, 576	\$25. 90	57	\$9. 14
1-250 .....	730	45. 39	10	12. 35
251-500 .....	304	40. 52	10	13. 15
501-1,000 .....	212	39. 87	13	7. 82
1,001-2,500 .....	212	28. 87	10	10. 10
2,501-5,000 .....	64	21. 90	5	6. 56
5,000 and over .....	41	15. 67	9	3. 88

<sup>1</sup> Based on companies included in the 1,576 reporting costs on health, medical, and safety.

<sup>2</sup> Includes companies which did not report number of persons employed.

<sup>3</sup> Based on a 1951 survey of 3,589 member companies with 3.3 million employees, made by the National Association of Manufacturers. The companies that responded to the questionnaire included factory, office, and executive

personnel and represented more than 22 percent of the average number of employees in manufacturing establishments during 1950.

SOURCE: George W. Bachman and Associates, Health Resources in the United States, Personnel, Facilities and Services, p. 262. Brookings Institution (Washington, D. C., 1952).

An average annual cost of in-plant health programs of \$14.53 per employee was reported in a study of 569 plants with 1.8 million employees, made by the American College of Surgeons in 1949. In this group of plants, costs declined with increase in size of plant ranging from \$26.43 per employee in those having less than 500 employees to \$9.48 in those with 7,500 to 15,000 employees. The ten largest size plants reported an average cost of \$21.51. The average per capita costs were \$14.78 in manufacturing firms and \$13.31 in nonmanufacturing firms.

Table 3.3.—Plants reporting cost data on in-plant medical programs and the average per capita cost, by size and type of plant, 1949

Size group (number of employees)	Total plants reporting		Manufacturing		Nonmanufacturing	
	Number	Average per capita cost	Number	Average per capita cost	Number	Average per capita cost
All plants <sup>1</sup> -----	442	\$14. 53	381	\$14. 78	61	\$13. 31
Under 500-----	40	26. 43	40	26. 43	-----	-----
500-999-----	78	16. 81	71	16. 54	7	19. 76
1,000-2,499-----	150	15. 19	136	14. 56	14	20. 91
2,500-4,999-----	103	13. 05	76	13. 52	27	11. 72
5,000-7,499-----	34	14. 06	29	12. 93	5	21. 19
7,500-14,999-----	27	9. 48	19	9. 34	8	9. 79
15,000-34,999-----	10	21. 51	10	21. 51	-----	-----

<sup>1</sup> Based on a survey by the American College of Surgeons of 569 plants with 1,752,508 employees. The 442 plants reporting cost data had a total of 1,362,248 employees.

SOURCE: George W. Bachman and Associates, Health Resources in the United States, Personnel, Facilities, and Services, p. 274. Brookings Institution (Washington, D. C., 1952).



Experience has shown that small plants can provide in-plant health services comparable to those in larger industries and at a similar cost by cooperating with each other. In Georgia, where 98 percent of the plants have less than 100 employees, several clinics have been established and civic and professional groups in the State have worked together to determine practicable approaches to the problem. Table 3.4, which shows the estimated annual cost of cooperative health centers for three employee-size groups, reflects the result of this planning. It indicates that the cost per employee would vary according to the number to be served from \$14.40 if the group includes 1,000 employees to \$8.78 if it includes 5,000 employees.

Table 3.4.—Estimated annual cost of cooperative health center serving a group of small plants, by type of expense and number of employees to be served, 1950

Type of expense	1,000 employees	2,000 employees	5,000 employees
Total cost <sup>1</sup> .....	\$14, 400	\$24, 600	\$43, 900
Per capita cost.....	14. 40	12. 30	8. 78
Physician <sup>2</sup> .....	4, 000	8, 000	12, 000
Nurses <sup>3</sup> .....	5, 000	10, 000	17, 500
Clerks <sup>4</sup> .....	1, 800	1, 800	3, 600
Supplies.....	1, 200	2, 400	6, 000
Rent, heat, light.....	2, 400	2, 400	4, 800

<sup>1</sup> Excludes prorated cost of equipment.  
<sup>2</sup> For 1,000 employees, ½ time; for 2,000, 1 full time; for 5,000, 1 full time and ½ time.  
<sup>3</sup> For 1,000 employees, 2 full time; for 2,000, 4 full time; for 5,000, 7 full time.

<sup>4</sup> For 1,000 employees, 1 full time; for 2,000, 1 full time; for 5,000, 2 full time.  
SOURCE: Lester M. Petrie, Health Maintenance in Small Plants. Southern Medical Journal, vol. 44, pp. 555-560 (Birmingham, Ala., June 1951).

The fluctuation from industry to industry of the cost of health, medical, and safety programs was also pointed up by the National Association of Manufacturers' study. It ranged from \$17.58 per employee per year in the ordnance industry to \$39.69 in the coal and petroleum industry.

In analyzing cost figures, it must be borne in mind that there is variation among companies as to the type of costs that are charged to health, medical, and safety programs. For example, some companies reported only salaries and cost of supplies and took no account of capital outlay, depreciation, rent, light, heat, and other indirect charges. Many other companies could submit estimates only, since costs are charged directly to operating accounts. Thus, the cost figures are probably understated substantially.

The part of the total cost of health, medical, and safety programs that is chargeable to safety in each of the industries covered by the survey is not known. However, for all industries combined, the safety programs alone cost about \$9 out of the total of \$26 per employee per year for health, medical, and safety programs.

These figures must be used with caution because the costs of programs in plants of all sizes have been merged and the influence of size of plant upon cost has been shown in this and other studies of this type.



Table 3.5.—Per capita costs of health, medical, and safety programs, by industry, 1950

	Number of companies reporting <sup>1</sup>	Per-capita cost		Number of companies reporting <sup>1</sup>	Per-capita cost
All industries.....	1,726	<sup>2</sup> \$25.07	Coal and petroleum.....	18	\$39.69
Ordnance.....	6	17.58	Rubber.....	30	22.71
Food.....	134	20.19	Leather.....	35	18.63
Tobacco.....	4	20.25	Stone.....	70	23.49
Textile.....	107	28.70	Primary metal.....	112	21.65
Apparel.....	55	25.69	Fabricated metal.....	247	20.19
Lumber.....	63	33.02	Machinery (except electrical).....	250	27.08
Furniture.....	49	36.11	Electrical machinery.....	94	25.76
Paper.....	70	34.72	Transportation equipment.....	82	17.97
Printing.....	41	35.89	Instruments.....	33	22.16
Chemical.....	126	28.90	Miscellaneous industries.....	49	22.64
			Specific industry not reported.....	17	39.24

<sup>1</sup> Based on a 1951 survey of 3,589 member companies with 3.3 million employees made by the National Association of Manufacturers. The companies that responded to the questionnaire included factory, office, and executive personnel and represented more than 22 percent of the average number of employees in manufacturing establishments during 1950. Some multiproduct companies are included in more than one industrial classification.

<sup>2</sup> This differs from the per capita cost shown in table 3.2 because companies in more than one industrial classification are counted more than once.

SOURCE: George W. Bachman and Associates, Health Resources in the United States, Personnel, Facilities and Services, p. 325. Brookings Institution (Washington, D. C., 1952).

Although indirect benefits cannot be measured easily, they constitute an important part of the value of an in-plant medical program.

A National Industrial Conference Board survey of 333 industrial establishments in the United States and Canada indicated the extent to which such benefits are recognized.

Over three-fourths of the companies covered in the survey reported the usefulness of in-plant medical programs in proper job placement and the promotion of safety, and almost three-fourths reported improved employer-employee relations resulting from the operations of the medical department. The industries included in the study covered a work force of more than 1.5 million persons, with 6.9 percent of the establishments employing less than 250 workers and 20.1 percent 5,000 or more employees.



Table 3.6.—Distribution of surveyed establishments according to report on special benefits derived from medical department operations

Benefit	Total surveyed	Establishments				
		Reporting specified benefits			Not answering	With no medical department
		Yes	No	No opinion		
		Number				
Improves employee health.....	333	237	6	48	39	3
Improves employee efficiency.....	333	230	6	47	47	3
Reduces employee turnover.....	333	170	16	95	49	3
Promotes safety.....	333	255	5	33	37	3
Reduces absenteeism.....	333	237	7	46	40	3
Reduces cost ratio of insurance.....	333	191	12	69	58	3
Assists in proper placement.....	333	259	9	24	38	3
Improves employer-employee relations.....	333	247	2	38	43	3
		Percent				
Improves employee health.....	100	71.2	1.8	14.4	11.7	0.9
Improves employee efficiency.....	100	69.1	1.8	14.1	14.1	.9
Reduces employee turnover.....	100	51.1	4.8	28.5	14.7	.9
Promotes safety.....	100	76.6	1.5	9.9	11.1	.9
Reduces absenteeism.....	100	71.2	2.1	13.8	12.0	.9
Reduces cost ratio of insurance.....	100	57.4	3.6	20.7	17.4	.9
Assists in proper placement.....	100	77.8	2.7	7.2	11.4	.9
Improves employer-employee relations.....	100	74.2	.6	11.4	12.9	.9

SOURCE: Ethel M. Spears. Company Medical and Health Programs, p. 72. National Industrial Conference Board (New York, N. Y., 1948).

Both direct and indirect benefits result from the work of in-plant medical departments. For example, the experience of the Socony-Vacuum Oil Company's East River plant, which has approximately 1,500 employees, reveals a substantial decrease in working days lost and in the amount paid out in sickness benefits since the medical department was established in March 1946. The decrease is particularly striking in view of the fact that wages upon which sickness benefits are based increased 50 percent during the period 1945-49.

Table 3.7.—Decrease in sickness and accident benefits and in working days lost, Socony-Vacuum Oil Co., 1945-49

Year	Sickness and accident payments	Man-work days lost from non-occupational illness		
		Total	Acute	Chronic
1945.....	\$77, 423	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1946.....	115, 726	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1947.....	103, 802	10, 466	6, 089	4, 377
1948.....	97, 570	8, 397	4, 286	4, 111
1949.....	66, 565	5, 435	3, 111	2, 324

<sup>1</sup> Data are not available.

SOURCE: Margaret C. Klem and Margaret F. McKiever. Small Plant Health and Medical Programs, pp. 64-65.

Public Health Service Publication No 215 (Washington, D. C., 1952) (based on article by Max N. Howard and Arthur E. Hoag, in AMA Archives of Industrial Hygiene and Occupational Medicine, April 1951).



Workmen's Compensation was the first social insurance measure to be adopted in the United States. In 1911 the first State Workmen's Compensation laws were enacted; 37 years later, in 1948, Mississippi became the last State to pass such legislation.

By 1950 about 35 million workers were covered, to some degree, by Workmen's Compensation in an average month. This is somewhat less than 75 percent of the 48 million wage and salary workers in the labor force in that year.

There are vast variations among the 48 States in the provisions of their Workmen's Compensation laws. No State law covers all employments. Only one State, Ohio, covers agricultural employment. The degree of protection for the worker against medical costs and wage loss due to work injuries also varies widely from State to State.

Table 3.8.—Total annual covered payroll and number of workers covered in an average month by workmen's compensation, selected years

Year:	Covered payroll <sup>1</sup> (billions)	Year:	Number of workers covered in an average month (millions)
1940.....	\$34. 7-35. 8	1940.....	24-25
1945.....	74. 0	1946.....	32-33
1946.....	79. 5	1948.....	34-35
1947.....	91. 5	1950.....	35
1948.....	101. 5		
1949.....	100. 0		
1950.....	109. 5		
1951.....	127. 2		

<sup>1</sup> Estimate of payrolls of employers insuring with private carriers, State funds, or self-insured and Federal program; excludes railroads (covered by Employer's Liability Act).

SOURCES:

Social Security Administration. Social Security Bulletin, vol. 15, No. 9, p. 26, table 2 (Washington, D. C., September 1952).

Dorothy McCamman, Workmen's Compensation: Coverage, Premiums and Payments. Social Security Bulletin, vol. 13, No. 7, p. 5. Social Security Administration (Washington, D. C., July 1950).

Unpublished estimates for 1950, Division of Research and Statistics, Social Security Administration (Washington, D. C., 1952).

About 33 cents of the average dollar of Workmen's Compensation benefits went for medical care and hospitalization in 1951. The proportion of Workmen's Compensation payments devoted to medical benefits declined some during the war years, but has risen slightly in the postwar period.

The maximum cost and duration of medical benefits is limited by the Workmen's Compensation laws of 17 States. In Louisiana this maximum is \$1,000; in Iowa it is \$1,500. In Pennsylvania 90 days of hospitalization, or up to a maximum of \$225, plus \$225 for medical and surgical care was the top limit in 1950.



**Table 3.9.—Total workmen's compensation payments, by type of payment, 1939-51**  
[Millions of dollars]

Year	Total	Type of payment			
		Medical and hospitalization	Compensation		
			Total	Disability	Survivor
1939.....	235	85	150	120	30
1940.....	256	95	161	129	32
1941.....	291	100	191	157	34
1942.....	330	108	222	186	36
1943.....	356	112	244	206	38
1944.....	387	120	267	227	40
1945.....	411	125	286	244	42
1946.....	435	140	295	251	44
1947.....	487	160	327	281	46
1948.....	537	175	362	312	50
1949.....	570	185	385	333	52
1950 <sup>1</sup> .....	617	200	417	362	55
1951 <sup>1</sup> .....	707	232	475	415	60

<sup>1</sup> Preliminary.

**SOURCES:**

Dorothy McCamman, Workmen's Compensation: coverage, premiums, and payments. Social Security Bull., vol. 13, No. 7, Social Security Administration (Washington, D. C., July 1950).  
Social Security Administration. Workmen's Compensation Payments, 1949.

Social Security Bulletin, vol. 13, No. 12, p. 18 (Washington, D. C., December 1950).

Social Security Administration. Workmen's Compensation Payments, 1950. Social Security Bulletin, vol. 14, No. 12, p. 33 (Washington, D. C., December 1951).

Social Security Administration. Social Security Bulletin, vol. 15, No. 12 (Washington, D. C., 1952). In press.

The total amount of money paid out for Workmen's Compensation benefits in 1951 was three times that paid out in 1939. This increase was due in part to an expanding labor force with more workers being covered; to rising wages on which monetary benefits are based; and to increases in maximum payments allowed for monetary and medical benefits.

Most of this 13-year growth is represented by the business of private insurance companies. State funds and self-insurance payments, while increasing in dollars, both declined in proportion to payments by private insurance companies.

Of all Workmen's Compensation payments in 1951, 63 percent were made by private insurance companies, 24 percent by State funds, and 14 percent by self-insurers.



Table 3.10.—Amount and percentage distribution of workmen's compensation payments, by type of carrier, 1939-51

[Thousands of dollars]

Year	Total		Type of insurance					
			Insurance losses paid by private insurance carriers <sup>1</sup>		State fund disbursements <sup>2</sup>		Self-insurance payments <sup>3</sup>	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1939-----	234, 875	100. 0	122, 183	52. 0	68, 481	29. 2	44, 211	18. 8
1940-----	256, 061	100. 0	134, 653	52. 6	72, 541	28. 3	48, 867	19. 1
1941-----	291, 318	100. 0	159, 823	54. 9	77, 202	26. 5	54, 293	18. 6
1942-----	330, 492	100. 0	190, 239	57. 6	81, 758	24. 7	58, 495	17. 7
1943-----	355, 862	100. 0	213, 123	59. 9	81, 609	22. 9	61, 130	17. 2
1944-----	386, 628	100. 0	236, 593	61. 2	85, 318	22. 1	64, 717	16. 7
1945-----	410, 828	100. 0	252, 570	61. 5	91, 368	22. 2	66, 890	16. 3
1946-----	435, 213	100. 0	269, 353	61. 9	96, 053	22. 1	69, 807	16. 0
1947-----	487, 400	100. 0	301, 833	61. 9	110, 849	22. 8	74, 718	15. 3
1948-----	537, 202	100. 0	334, 699	62. 3	122, 941	22. 9	79, 562	14. 8
1949-----	569, 838	100. 0	353, 092	62. 0	134, 306	23. 6	82, 440	14. 4
1950 <sup>4</sup> -----	616, 789	100. 0	381, 080	61. 8	148, 509	24. 1	87, 200	14. 1
1951 <sup>4</sup> -----	707, 075	100. 0	443, 681	62. 7	166, 745	23. 6	96, 649	13. 7

<sup>1</sup> Net cash and medical benefits paid by private insurance carriers under standard workmen's compensation policies. Data from the Spectator: Premiums and Losses by States of Casualty, Surety and Miscellaneous Lines.

<sup>2</sup> Net cash and medical benefits paid by State funds; compiled from State reports (published and unpublished) and from the Spectator; estimated for some States.

<sup>3</sup> Cash and medical benefits paid by self-insurers, plus the value of medical benefits paid by employers carrying workmen's compensation policies that do not include the standard medical coverage. Estimated from available State data.

<sup>4</sup> Preliminary.

## SOURCES:

Dorothy McCamman, Workmen's Compensation: Coverage, Premiums and Payments. Social Security Bulletin, vol. 13, No. 7, p. 9.

Social Security Administration (Washington, D. C., July 1950).

Social Security Administration, Workmen's Compensation Payments, 1949. Social Security Bulletin, vol. 13, No. 12, p. 18 (Washington, D. C., December 1950).

Social Security Administration, Social Security Bulletin, vol. 15, No. 12, (Washington, D. C., December 1952). In press.

Workmen's Compensation benefits paid during 1951 by private insurance carriers amounted to about one-half of the premiums written. Over a 13-year period for private carriers this ratio of benefit disbursements to premiums collected has fluctuated from a low of 41.5 in 1942 to a high of 52.9. The average "loss ratio" for the period 1939 to 1951 was 48.2. During this 13-year period, more than \$3.6 billion written in premiums was not paid back in benefits by the private insurance carriers.

**Table 3.11.—Net premiums written in relation to losses paid by all private carriers, workmen's compensation programs, 1939-51**

Year	Premiums (millions of dollars)	Losses <sup>1</sup> (millions of dollars)	Loss ratio <sup>2</sup> (percent)
Total.....	7, 049. 1	3, 395. 1	48. 2
1939.....	260. 1	123. 8	47. 6
1940.....	270. 9	134. 6	49. 7
1941.....	342. 0	159. 8	46. 7
1942.....	458. 2	190. 2	41. 5
1943.....	503. 7	213. 2	42. 3
1944.....	501. 8	236. 7	47. 2
1945.....	488. 4	252. 7	51. 7
1946.....	512. 1	269. 4	52. 6
1947.....	662. 9	301. 9	45. 5
1948.....	750. 5	334. 8	44. 6
1949.....	735. 4	353. 3	48. 0
1950.....	719. 8	381. 0	52. 9
1951.....	843. 3	443. 7	52. 6

<sup>1</sup> Benefit disbursements.

<sup>2</sup> Calculated on unrounded figures.

SOURCE: Spectator. Premiums and Losses by States of Casualty Surety and Miscellaneous Lines, 1940-52 editions (Philadelphia, Pa.)



One of the primary differences among the States in Workmen's Compensation is the type of insurance carrier which employers may use. In 11 States employers may choose between insuring with a private carrier or the State fund. In 7 States employers are required to use the State fund. In 30 States employers use private insurance carriers or (as in almost all States), if they can give proof of their ability to carry their own risk, they may self-insure.

In 1948 private carriers returned in benefits only about 45 cents of each premium dollar. Eighty-six cents of the premium dollar of exclusive State funds was paid out in benefits, while in the case of State funds which were competitive with private carriers this so-called "loss ratio" was 52. Under this social insurance program there are substantially higher benefit payments per premium dollar in those States with exclusive State funds than in States where private insurance carriers participate.

Table 3.12.—Net premiums written, benefit disbursements, and ratio of benefits to premiums by type of insurance, 1948

Type of insurance	Premiums written (millions of dollars)	Benefit disbursements (millions of dollars) <sup>1</sup>	Loss ratio (percent) <sup>2</sup>
All types, other than self-insurance.....	930	458	49
Private carriers.....	750	335	45
State funds, competitive <sup>3</sup> .....	92	48	52
State funds, exclusive <sup>4</sup> .....	<sup>5</sup> 88	76	86
Self-insurance:			
With 5 percent administrative costs.....	<sup>6</sup> 84	80	-----
With 10 percent administrative costs.....	<sup>6</sup> 88	80	-----

<sup>1</sup> Estimated. Data on losses incurred for each type of insurance are not available. Although loss ratios calculated on benefit disbursements for a 1-year period are generally less meaningful than ratios calculated on incurred losses, they nevertheless provide a valid basis for a comparison between types of insurance.

<sup>2</sup> Calculated on unrounded figures.

<sup>3</sup> 11 States. Employers may choose between insuring with the State fund or with a private carrier.

<sup>4</sup> 7 States in which employers are required to use the State fund; also includes Federal employees' system financed through annual Congressional appropriations.

<sup>5</sup> Premium estimate for Federal employees' system includes benefit payments plus administrative costs.

<sup>6</sup> Estimated payments for compensation and medical

care plus 5- or 10-percent allowance for administrative costs of self-insuring.

SOURCES:

Social Security Administration. Supplemental material to: Dorothy McCamman, Workmen's Compensation, Coverage and Premiums. Social Security Bulletin, vol. 13, No. 7, pp. 7-10. (Washington, D. C., July 1950).

Spectator. Premiums and Losses by States of Casualty, Surety and Miscellaneous Lines.

Spectator. Data on State funds. (Philadelphia, Pa.)

Correspondence with States, and annual reports of the Federal Employees' System. Social Security Administration (Washington, D. C.).

## 4. RESEARCH

In the Nation's \$181 million program for medical research in 1951, 42 percent of the funds represented Federal expenditures, 33 percent was supplied by industry, 14 percent by philanthropy, and 11 percent by hospitals and medical schools, according to data compiled recently by Medical Economics. No data are available on State and local expenditures.

Nearly half the Federal total of \$76 million was expended by the Public Health Service for research conducted by Public Health Service personnel and for grants to non-Federal research institutions and investigators.

Table 4.1.—Public and private expenditures for medical research, by source of funds, 1951

Source of funds	Amount (millions of dollars)	Percent
Total	181.2	100.0
Government	76.2	42.1
Public Health Service	35.2	19.4
Atomic Energy Commission	18.0	9.9
Department of Defense:		
Army	6.8	3.8
Navy	6.0	3.3
Air Force	4.7	2.6
Veterans' Administration	4.5	2.5
Other	1.0	.6
Industry	60.0	33.1
Pharmaceutical and proprietary	52.5	29.0
Industrial foundations	5.0	2.7
Other	2.5	1.4
Philanthropy	25.0	13.8
Philanthropic foundations	10.0	5.5
Voluntary health associations	10.0	5.5
Personal donations	5.0	2.8
Profession <sup>1</sup>	20.0	11.0
Hospitals	15.0	8.3
Medical schools	5.0	2.7

<sup>1</sup> Excludes free-service contributions of physicians.

SOURCE: Justus J. Schifferes. Who Pays for Medical

Research? Medical Economics, vol. 28, No. 10, p. 66  
(East Rutherford, N. J., July 1951).



The total expenditure for research in the fiscal year 1946-47 amounted to \$115 million, according to a study conducted by the President's Scientific Research Board. Industry provided nearly 48 percent of that total. The Federal Government was the source of 24 percent. Philanthropy and other private sources provided 26 percent.

Table 4.2.—Expenditures for medical research, by source of funds, 1946-47

Source of funds	Amount (thousands of dollars)	Percent
Total <sup>1</sup> .....	115, 150	100. 0
Government, Federal.....	28, 150	24. 4
Public Health Service.....	12, 585	10. 9
Atomic Energy Commission.....	( <sup>2</sup> )	-----
Department of Defense:		
Army.....	5, 050	4. 4
Navy.....	5, 940	5. 2
Air Force.....	990	. 9
Veterans Administration.....	2, 520	2. 2
Other.....	1, 065	. 9
Government, State, and local.....	1, 500-2, 000	1. 7
Industry.....	55, 000	47. 8
Pharmaceutical, proprietary.....	50, 000	43. 4
Industrial foundations.....	5, 000	4. 3
Philanthropy.....	20, 000	17. 4
Philanthropic foundations.....	10, 000	8. 7
Voluntary health associations.....	10, 000	8. 7
Personal donations.....	( <sup>3</sup> )	-----
Other private.....	5, 000-10, 000	8. 7
Profession:		
Hospitals.....	( <sup>3</sup> )	-----
Medical schools.....	( <sup>4</sup> )	-----

<sup>1</sup> Includes the larger sum where there is an estimated range of expenditures.

<sup>2</sup> Not listed as a separate item.

<sup>3</sup> Not estimated.

<sup>4</sup> \$950,000 in research funds estimated as received by State medical schools from outside sources and \$575,000

(almost certainly included in State and local government expenditures above) from internal budgets.

SOURCE: The President's Scientific Research Board. The Nation's Medical Research, vol. 5 of Science and Public Policy (Washington, D. C., October 18, 1947).

Federal financial support of research in medical schools and other research organizations through research grants or contracts was greatly stimulated during the war years and has continued to rise.

The Federal sums thus awarded have increased from \$5.8 million in the fiscal year 1946-47 to \$21.3 million in 1949-50, two years for which estimates are reasonably adequate; this amounts to nearly a 270 percent increase. In the same period there was a parallel increase of more than 160 percent in grants and contracts from private sources.

**Table 4.3.—Research grants or contracts awarded by Government and private sources, by fiscal year, 1946-51**

Fiscal year	Total	Government	Private
1946.....	\$4, 307, 441	\$1, 871, 065	\$2, 436, 376
1947.....	10, 254, 340	5, 807, 147	4, 447, 193
1948.....	21, 457, 747	12, 859, 975	8, 597, 772
1949.....	33, 130, 118	19, 466, 388	13, 663, 730
1950.....	33, 000, 870	21, 320, 493	11, 680, 377
1951.....	32, 893, 609	21, 785, 603	11, 108, 006

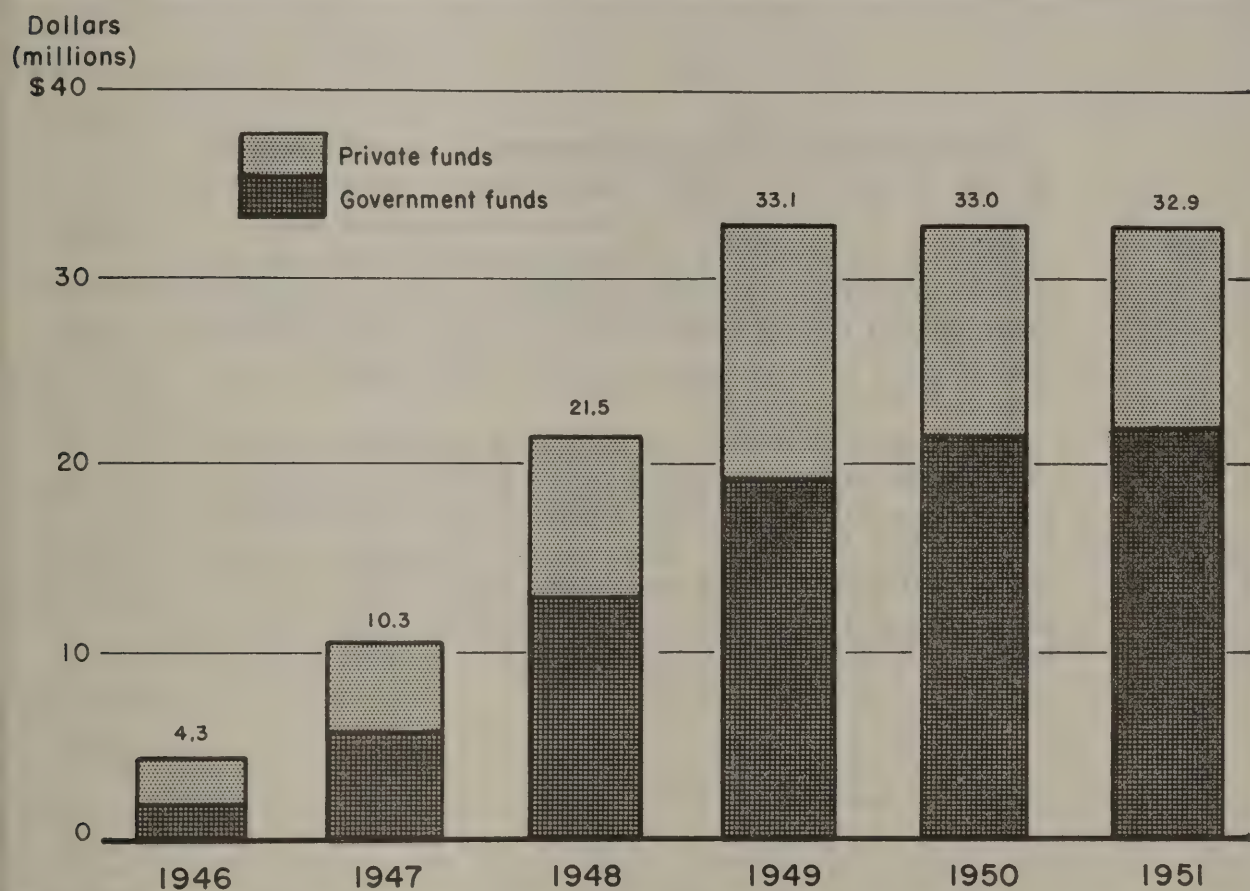
NOTE: The data in tables 4.3-4.6 are restricted to investigative research supported by grants or contracts. They are based on grants registered with the Medical Sciences Information Exchange of the National Research Council. Because of incomplete reporting, the data have certain limitations. Few awards made by industry, local foundations, or funds established solely for individual universities have been included. The data from Government are, perhaps, more extensive than those from private agencies because of the completeness of records of Public

Health Service grants. However, information on contracts made through Government agencies other than the Public Health Service is incomplete, with the result that a balance between the Government and private sources of funds is approached.

SOURCE: Stella Leche Diegnan and Esther Miller. The Support of Research in Medical and Allied Fields for the Period 1946 through 1951. Science, vol. 115, No. 2987, pp. 321-333 (Washington, D. C., Mar. 28, 1952)



Chart 4A.—Funds for medical research from Government sources and from private sources, by fiscal year, 1946–51



Source: National Research Council

Of the funds distributed by government to support research in 1946-51 nearly 15 percent was for cancer investigations, 17 percent was for research on infectious diseases, nearly 11 percent was for studies of the cardiovascular system, and 10 percent was for general medical problems. Metabolism and nutrition and mental health were the only two other fields that received 5 percent or more of the total research funds from government sources.

Cancer research received 27 percent of the funds from private sources, infectious diseases received 18 percent, metabolism and nutrition had nearly 7 percent, and cardiovascular research had 5 percent. Research not classifiable in any specific category received nearly 20 percent of the research funds from private sources as contrasted with only 4 percent of the funds distributed by government.



Table 4.4.—Percentage distribution of research funds from Government and private sources, by subject category, 1946–51

<i>Subject category</i> <sup>1</sup>	<i>Percent</i>	<i>Subject category</i>	<i>Percent</i>
Cancer.....	19.54	Problems of Children.....	2.04
Government.....	14.75	Government.....	1.60
Private.....	27.21	Private.....	2.72
Infectious Diseases.....	17.68	Digestive System.....	1.43
Government.....	17.23	Government.....	2.29
Private.....	18.41	Private.....	.05
Cardiovascular System.....	8.76	Human Resources.....	1.23
Government.....	10.90	Government.....	1.79
Private.....	5.34	Private.....	.35
General Medical Problems.....	7.34	Sensory Organs.....	1.06
Government.....	10.04	Government.....	1.51
Private.....	3.04	Private.....	.35
Metabolism and Nutrition.....	5.69	Urogenital System.....	.88
Government.....	5.07	Government.....	1.12
Private.....	6.67	Private.....	.50
Mental Health.....	4.29	Aging.....	.83
Government.....	5.38	Government.....	.91
Private.....	2.55	Private.....	.71
Basic Studies.....	3.53	Dental Problems.....	.81
Government.....	3.57	Government.....	1.17
Private.....	3.46	Private.....	.23
Public Health.....	3.29	Respiratory System.....	.56
Government.....	3.69	Government.....	.79
Private.....	2.64	Private.....	.19
Nervous System.....	2.85	Integumentary System.....	.49
Government.....	3.15	Government.....	.77
Private.....	2.39	Private.....	.04
Blood.....	2.62	Occupational Diseases.....	.19
Government.....	3.96	Government.....	.26
Private.....	.47	Private.....	.07
Musculoskeletal System.....	2.42	Other.....	10.21
Government.....	2.94	Government.....	4.34
Private.....	1.50	Private.....	19.61
Endocrine System.....	2.26		
Government.....	2.76		
Private.....	1.47		

<sup>1</sup> See Note Table 4.3.

SOURCE: Stella Leche Deignan and Esther Miller. The Support of Research in Medical and Allied Fields for the Period 1946 Through 1951. Science, vol. 115, No. 2987 (Washington, D. C., Mar. 28, 1952).

Seventy-five percent of the research funds distributed in 1946-51 has been received by investigators in 11 jurisdictions. Among them New York heads the list with 20 percent of the total research funds granted in the period. Massachusetts, the next in order, had nearly 10 percent of the total.

Table 4.5.—Percentage distribution of 75 percent of total research funds from Government and private sources, by State 1946-51

State	Percent						
	1946-51	1946	1947	1948	1949	1950	1951
Total <sup>1</sup> .....	75. 46	75. 24	77. 10	77. 30	72. 74	74. 08	74. 76
New York.....	20. 24	26. 50	20. 76	22. 10	20. 23	19. 29	19. 02
Massachusetts.....	9. 85	7. 62	9. 38	9. 31	9. 12	10. 27	10. 90
Pennsylvania.....	7. 97	6. 12	8. 26	7. 34	9. 84	7. 12	7. 47
California.....	7. 79	5. 06	4. 25	8. 30	7. 94	8. 28	8. 22
Illinois.....	7. 61	9. 03	10. 93	7. 93	5. 62	8. 50	7. 23
Dist. of Columbia.....	5. 08	4. 37	5. 05	4. 71	4. 65	4. 71	3. 20
Maryland.....	4. 23	3. 59	3. 82	5. 61	3. 85	4. 13	4. 02
Ohio.....	3. 53	2. 85	4. 68	2. 89	3. 45	3. 76	3. 56
Michigan.....	3. 51	2. 64	4. 05	3. 28	2. 34	2. 94	5. 36
Connecticut.....	2. 87	3. 96	2. 86	2. 83	3. 14	2. 50	2. 89
Minnesota.....	2. 78	3. 50	3. 06	3. 00	2. 56	2. 58	2. 89

<sup>1</sup> See Note Table 4.3.

SOURCE: Stella Leche Deignan and Esther Miller. The Support of Research in Medical and Allied Fields for the

Period 1946 Through 1951. Science, vol. 115, No. 2987, pp. 321-333 (Washington, D. C., Mar. 28, 1952).



In the six-year period, 1946 through 1951, a total of \$135 million was distributed in research grants by government and private organizations other than industrial.

Of the 12,900 grants thus distributed, one-third went to research institutions in the Middle East section of the United States which received \$51.5 million of the total grant funds—\$30.2 million of the \$83.1 million distributed by government and \$21.3 million of the \$51.9 million from private sources.

The Southwest area got only 289 grants totaling \$2.2 million, \$1.5 million from government and about \$770 thousand from private organizations.

Table 4.6.—Regional distribution of research grants from Government and private sources, 1946–51

Regions	1946–51		Regions	1946–51	
	Number of grants <sup>1</sup>	Amount		Number of grants	Amount
United States.....	12, 923	\$135, 044, 125	Central.....	2, 828	\$29, 814, 308
Government.....	7, 216	83, 110, 671	Government.....	1, 874	19, 284, 507
Private.....	5, 707	51, 933, 454	Private.....	954	10, 529, 801
New England.....	1, 739	18, 431, 030	Northwest.....	434	4, 994, 685
Government.....	987	11, 534, 939	Government.....	280	3, 272, 947
Private.....	752	6, 896, 091	Private.....	154	1, 721, 738
Middle East.....	4, 524	51, 478, 455	Far West.....	1, 080	12, 168, 976
Government.....	2, 386	30, 159, 504	Government.....	662	8, 034, 756
Private.....	2, 138	21, 318, 951	Private.....	418	4, 134, 220
Southeast.....	1, 086	10, 393, 759	Other countries.....	943	5, 537, 515
Government.....	721	7, 535, 341	Government.....	122	1, 830, 155
Private.....	365	2, 858, 418	Private.....	821	3, 707, 360
Southwest.....	289	2, 225, 397			
Government.....	184	1, 458, 522			
Private.....	105	766, 875			

<sup>1</sup> See Note Table 4.3.

for the Period 1946 Through 1951. Science, vol. 115. No. 2987, pp. 321–333 (Washington, D. C., Mar. 28, 1952).

SOURCE: Stella Leche Deignan and Esther Miller. The Support of Research in Medical and Allied Fields

## 5. EDUCATION FOR HEALTH PERSONNEL

Medical schools in the United States spent an estimated \$110 million in the fiscal year 1951-52. Of this, \$76.2 million was for basic operating expenses: instruction, administration, and other general expenses, operation and maintenance of physical plant, and libraries. The remaining \$33.8 million was for research, budgeted separately and financed primarily from funds received from such sources as Federal agencies, private foundations and associations, and industry. These expenses do not include the cost of separately organized postgraduate education and of hospitals and clinics.

The income of these schools from tuition, fees, and special training grants was estimated to be \$21.4 million. This does not include income from State appropriations, university transfers, endowment, or other sources. Grants from outside agencies for specially budgeted research equalled the estimated expenditures of \$33.8 million.

There were 27,076 undergraduate medical students enrolled in the 79 schools—26,515 in the seventy-two 4-year schools and 561 in the seven 2-year schools of basic science. In addition, the medical schools were responsible for instruction of 55,437 other students enrolled for advanced degrees, taking continuation or refresher courses, or getting instruction in the basic medical sciences as part of their nursing, dental, pharmaceutical, or other training.

Table 5.1.—Operating expenses, income, and number of students, all 4-year and basic science schools, 1951-52

<i>Operating expenses</i> <sup>1</sup> — <i>fiscal year 1951-52</i>		<i>Students—academic year 1951-52</i>	
	<i>Millions of dollars</i>		
Total.....	110. 0	Undergraduate medical students.....	27, 076
Basic expenses.....	76. 2	In 4-year medical schools.....	26, 515
Separately budgeted research.....	33. 8	In basic science schools.....	561
Separately organized postgraduate education.....	(2)	Other students for whom medical schools were	
Hospitals and clinics.....	(2)	responsible.....	55, 437
<i>Income</i> <sup>1</sup> — <i>fiscal year 1951-52</i>		Nursing, dental, pharmacy, technical, and	
Tuition and fees.....	16. 3	other nonmedical students.....	29, 609
Special teaching grants.....	5. 1	Physicians enrolled in refresher or continu-	
Grants from outside agencies for research.....	33. 8	ation courses.....	15, 829
State appropriations and university transfers.....	(2)	Interns and residents.....	5, 787
Endowment income.....	(2)	Physicians enrolled for advanced degrees.....	1, 905
Other sources.....	(2)	Physicians enrolled in formal basic science	
		courses.....	978
		Other.....	1, 329

<sup>1</sup> Estimated.

<sup>2</sup> Data not available.

SOURCE: Journal American Medical Association, vol. 150, No. 2 (Chicago, Ill., Sept. 13, 1952).



Expenses of medical schools in 1952-53 are estimated to be \$5.4 million higher than in 1951-52. The total of \$115.4 million represents \$82.2 million for basic operating expense and \$33.2 million for separately budgeted research.

To meet these basic operating expenses the schools expect to receive \$17.4 million from tuition and fees, and \$38.2 million in grants, either as special teaching grants or from outside agencies for research. Data on income from university transfers and State appropriations and from endowment interest and other sources are not available.

Table 5.2.—Operating expenses and income of all 4-year and basic science schools, 1952-53

<i>Operating expenses</i> <sup>1</sup> —fiscal year 1952-53		<i>Income</i> <sup>1</sup> —fiscal year 1952-53	
	<i>Million of dollars</i>		<i>Millions of dollars</i>
Total .....	115.4	Tuition and fees .....	17.4
Basic expenses .....	82.2	Special teaching grants .....	5.0
Separately budgeted research .....	33.2	Grants from outside agencies for research .....	33.2
Separately organized postgraduate education .....	(2)	State appropriations and university transfers .....	(2)
Hospitals and clinics .....	(2)	Endowment income .....	(2)
		Other sources .....	(2)

<sup>1</sup> Estimated.

<sup>2</sup> Data not available.

SOURCE: Journal American Medical Association, vol. 150, No. 2 (Chicago, Ill., Sept. 13, 1952).

More detailed information on the costs of medical education is available for the fiscal year 1947-48. In that year the seventy-two 4-year medical schools spent \$52.5 million for basic operations, \$17.1 million for separately budgeted research, and \$1.8 million for separately organized postgraduate education. During the academic year 1947-48, 23,054 undergraduate medical students were enrolled in medical schools. In addition there were indeterminate numbers of graduate and postgraduate students.

The largest share of income to meet these basic operating expenses of the 4-year schools was derived from university transfers and State and city appropriations—\$24.1 million; tuition and fees totalled \$12 million; gifts and grants amounted to \$6.9 million, endowment income afforded \$6.7 million, and miscellaneous income brought in \$2.8 million.

Nearly half the income to meet the expenditure of \$17.1 million for separately budgeted research came from Federal grants and contracts.

The seven basic science schools have basic operating expenses of \$1.0 million; their income was \$0.8 million from State and city appropriations and university transfers and \$0.2 million from tuition and fees.

The deans of the 79 medical schools estimated that their schools needed an additional \$40 million to meet annual basic operating expenses and \$250 million for physical facilities and equipment. These estimates were based on the number of undergraduate, graduate, and post-graduate students receiving instruction in medical schools in 1948-49 as well as on price and salary levels of that year.

Fifty-five medical schools were planning an increase of 32 percent over their freshman enrollment of 1948-49. Their deans' estimates indicate that \$18 million in operating funds and \$244 million for construction would be necessary to effect that increase which is in addition to estimated needs for the enrollment of 1948-49.



Table 5.3.—Operating expenses, amount of unmet needs, sources of income, all 4-year and basic science schools, 1947–48

<i>Educational operating expenses</i>	<i>Millions of dollars</i>	<i>Sources of income</i>	<i>Millions of dollars</i>
All 4-year schools.....	71.4	All 4-year schools.....	71.4
Basic expenses.....	52.5	Basic income.....	52.5
Separately budgeted research.....	17.1	State and city appropriations and university transfers.....	24.1
Separately organized postgraduate education.....	1.8	Tuition and fees.....	12.0
Hospitals and clinics..... <sup>(1)</sup>		Gifts and grants.....	6.9
All basic science schools—Basic expenses.....	1.0	Endowment income.....	6.7
<i>Unmet needs</i> <sup>2</sup>		Miscellaneous.....	2.8
All 4-year schools:		Separately budgeted research.....	17.1
Operating expenses.....	40.0	Federal grants and contracts.....	8.0
Physical facilities and equipment.....	250.0	Other sources.....	9.1
		Separately organized postgraduate education.....	1.8
		All basic science schools.....	1.0
		State-city appropriations and university transfers.....	.8
		Tuition and fees.....	.2
		Miscellaneous..... <sup>(3)</sup>	

<sup>1</sup> Data not complete.<sup>2</sup> Based on data furnished by the deans of the schools.<sup>3</sup> Approximately \$25,000.

## SOURCES:

Public Health Service. Financial Status and Needs of Medical Schools. Pt. II of a report by the Surgeon General's committee on medical school grants and

finances. Public Health Service Publication No. 54 (Washington, D. C., 1951).

Donald G. Anderson and Anne Tipner, Medical Education in the United States and Canada. Journal of the American Medical Association, vol. 141, No. 1, pp. 27–89, and vol. 144, No. 2, pp. 109–181 (Chicago, Ill., Sept. 3, 1949, and Sept. 9, 1950).

Comparable data for 1940-41 and 1947-48 for fifty-four 4-year medical schools indicate a sharp rise in basic operating expenses from \$20.9 million to \$40.4 million.

This 94 percent increase is a composite of a rise of 134 percent for public schools and 75 percent for private schools. The increases in public schools greatly exceeded those in private schools for all items of basic operating expense. A 129 percent increase in expense for instruction in public schools was twice that of private schools (61 percent).

In 1940-41, these fifty-four schools had 17,206 undergraduate students; 7 years later enrollment had risen to 18,128. The enrollment of the public schools was 6,334 in 1940-41 and 6,414 in 1947-48. For the private schools the corresponding totals were 10,872 and 11,714.



**Table 5.4.—Basic operating expense by expense item and form of school control, fiscal years 1940–41 and 1947–48**  
[54 4-year medical schools]

Fiscal year and expense item	Form of school control		
	Total	Public	Private
<b>1940–41</b>			
Total.....	\$20, 873, 254	\$6, 538, 305	\$14, 334, 949
Instruction.....	14, 987, 375	4, 387, 197	10, 600, 178
Administration and general.....	2, 859, 595	988, 812	1, 870, 783
Plant operation, maintenance.....	2, 466, 469	980, 104	1, 486, 365
Libraries.....	559, 815	182, 192	377, 623
<b>1947–48</b>			
Total.....	40, 410, 035	15, 307, 449	25, 102, 586
Instruction.....	27, 114, 645	10, 061, 829	17, 052, 816
Administration and general.....	6, 180, 886	2, 193, 287	3, 987, 599
Plant operation, maintenance.....	6, 038, 218	2, 649, 474	3, 388, 744
Libraries.....	1, 076, 286	402, 859	673, 427

SOURCE: Public Health Service. Medical School Grants and Finances, pt. II, p. 76, table 14. Public Health Service Publication No. 54 (Washington, D. C., 1951).

Basic operating income on a comparable basis for fifty-four 4-year medical schools shows the relative stability of endowment income and gifts and grants from 1940-41 to 1947-48.

The main source of increased income to meet the higher basic operating expense has been university transfers, State and city appropriations, and miscellaneous sources, shown in this table as "other" income. This "other" income has risen 360 percent, from \$4.3 million to \$19.8 million.

Income from tuition and fees has also risen—from \$7.2 million to \$9.8 million. The percentage increase in this source of income has been greater in public schools than in those under private auspices.



**Table 5.5.—Basic operating income by source of income and form of school control, 1940-41 and 1947-48**  
[54 4-year medical schools]

Fiscal year and source of income	Form of school control		
	Total	Public	Private
1940-41			
Total income, all sources.....	\$20, 873, 254	\$6, 538, 305	\$14, 334, 949
Tuition and fees.....	7, 185, 258	1, 900, 731	5, 284, 527
Endowment income <sup>1</sup> .....	5, 005, 937	349, 241	4, 656, 696
Gifts and grants <sup>1</sup> .....	4, 397, 753	1, 049, 430	3, 348, 323
Other.....	4, 284, 306	3, 238, 903	1, 045, 403
1947-48			
Total income, all sources.....	40, 410, 035	15, 307, 449	25, 102, 586
Tuition and fees.....	9, 765, 099	2, 667, 342	7, 097, 757
Endowment income <sup>2</sup> .....	5, 563, 784	206, 179	5, 357, 605
Gifts and grants <sup>2</sup> .....	5, 235, 053	981, 859	4, 253, 194
Other.....	19, 846, 099	11, 452, 069	8, 394, 030

<sup>1</sup> Total income reported by the schools; includes both the amount of restricted funds expended and the unexpended balances.

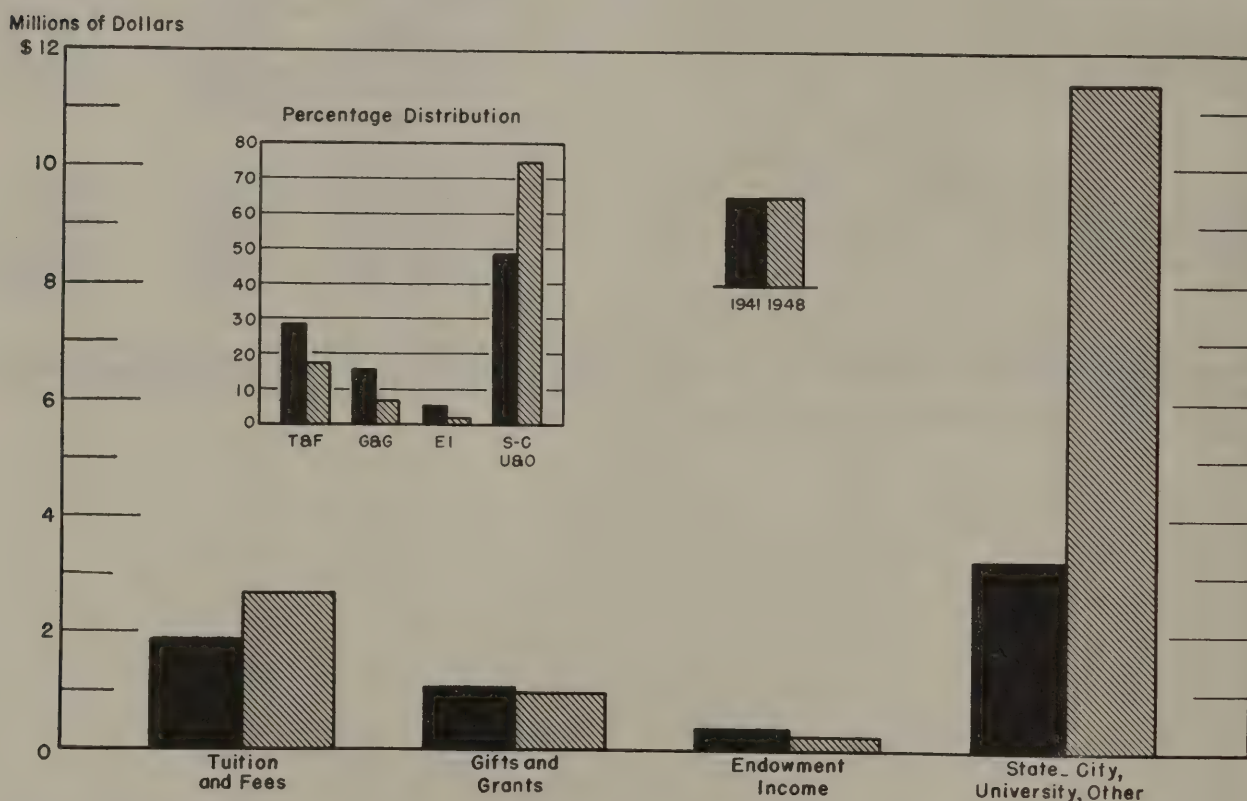
<sup>2</sup> Does not include unexpended balances of restricted funds.

SOURCE: Public Health Service. Medical School Grants and Finances, pt. II, p. 76, table 15. Public Health Service Publication No. 54 (Washington, D. C., 1951).

Public medical schools derived 75 percent of their income for basic operations from State and city appropriations, university transfers, and miscellaneous sources in 1947-48 as contrasted with 50 percent in 1940-41.

Income from tuition and fees met 18 percent of their basic operating expense in 1947-48 as compared with 29 percent in the earlier year. Gifts and grants and endowment income—the source of 21 percent of basic operating income in 1940-41—represented only 7 percent in 1947-48.

Chart 5A.—Income for basic operations, by source of income, public medical schools, 1941 and 1948.



Source: Public Health Service

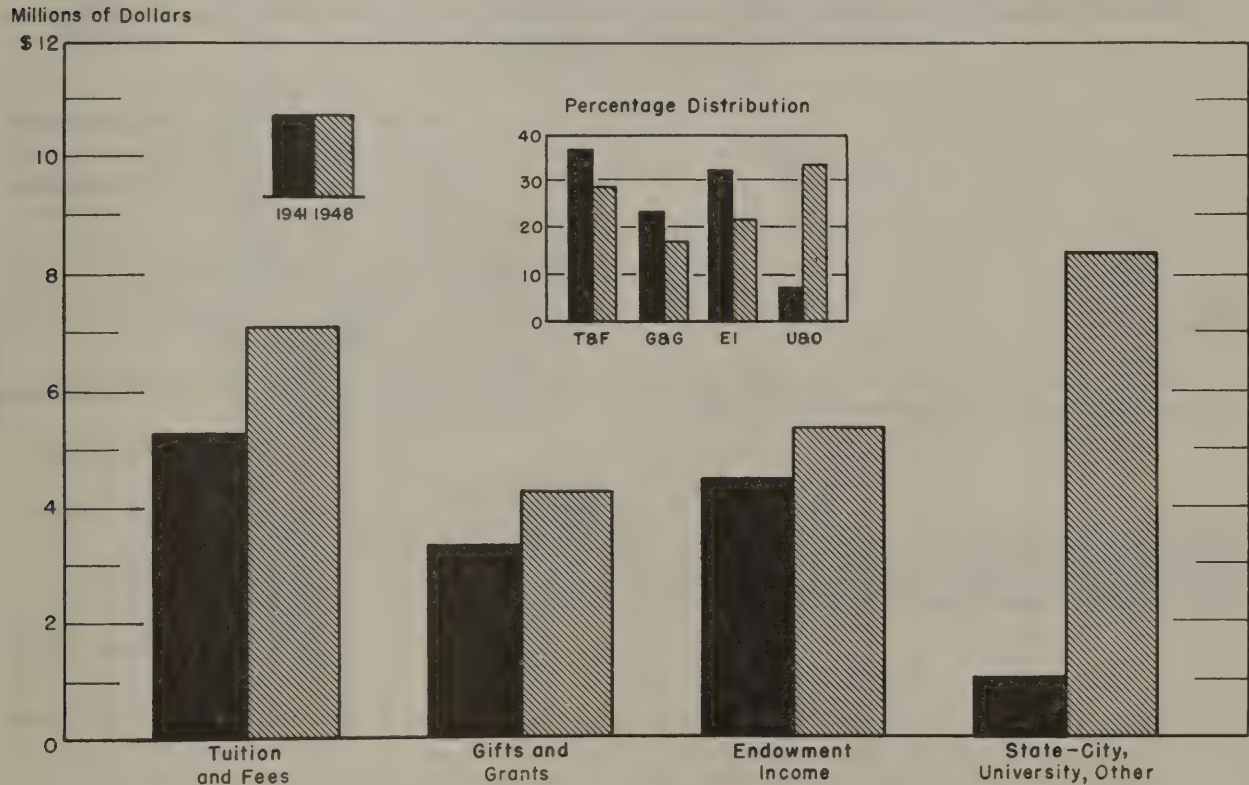


Private medical schools have also greatly increased their reliance on university transfers, State appropriations, and related sources of income. These sources provided 34 percent of the income for basic operations in 1947-48—a substantial increase over the 7 percent in 1940-41.

Tuition and fees in the earlier year met 37 percent of basic operating expenses as compared with 28 percent in 1947-48.

Endowment income, earlier a source of one-third of basic operating income, provided only one-fifth of that income in 1947-48.

Chart 5B.—Income for basic operations, by source of funds, private medical schools, 1941 and 1948.



Source: Public Health Service

Comparable data for sixty-three 4-year medical schools indicate an increase of 353 percent in their outlays for separately budgeted research between 1940-41 and 1947-48. For public schools the increase was from less than \$0.9 million to \$4.3 million—a rise of 389 percent; for private schools as a group, expenses for separately budgeted research rose from \$2.6 million to about \$11.7 million—an increase of 341 percent.

Funds for separately budgeted research are obtained through research grants and contracts awarded by Federal agencies and private organizations.

**Table 5.6.—Increase in expense for research budgeted separately by form of school control, 1940-41 and 1947-48**

[63 4-year medical schools]

Form of school control	Expense for research budgeted separately		
	1940-41	1947-48	Percentage increase
Total.....	\$3, 520, 411	\$15, 951, 490	353
Public.....	878, 758	4, 298, 412	389
Private.....	2, 641, 653	11, 653, 078	341

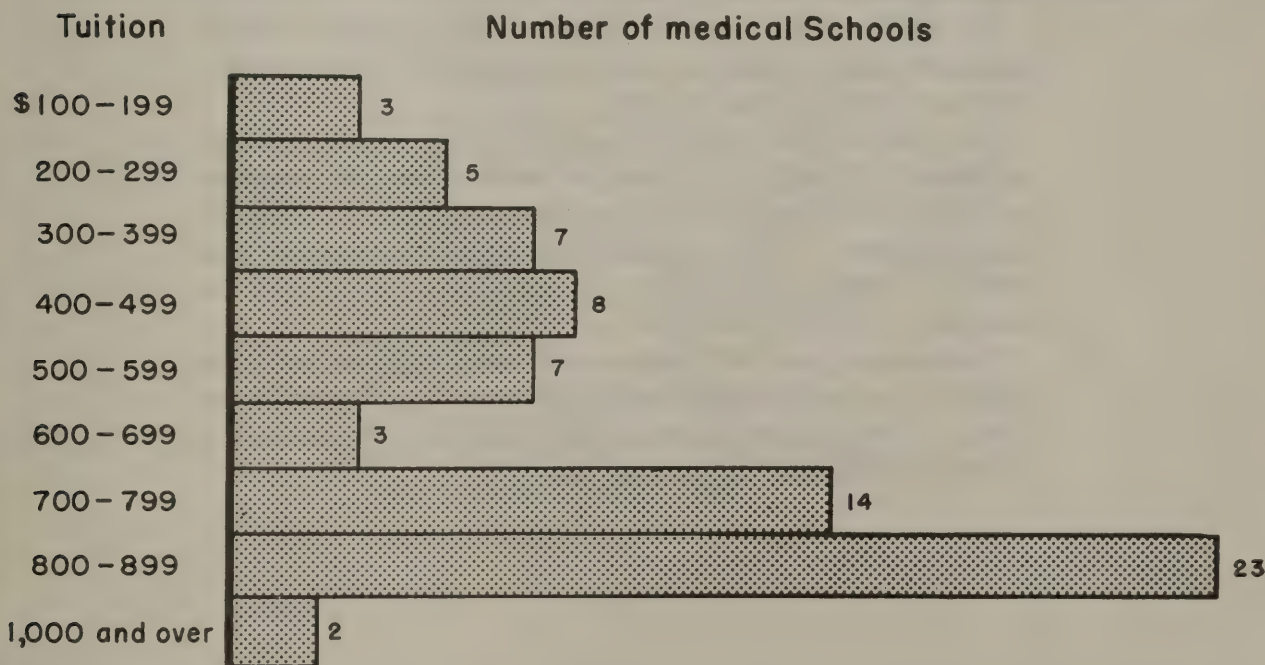
SOURCE: Public Health Service. Medical School Grants and Finances, pt. II, p. 43, table 21. Public Health Service Publication No. 54 (Washington, D. C., 1951).



The median annual charge for tuition and fees was \$732 in the seventy-two 4-year medical schools in 1951. More than half the schools charged more than \$700 and about one-third charged less than \$500.

These charges take no account of an extra charge assessed by 27 public schools for students who are not residents of the State in which the school is located.

Chart 5C.—Annual tuition fees for resident students in 72 medical schools in the United States, 1951.



Source: American Medical Association

The 40 dental schools in the United States spent a total of \$16.8 million in 1949-50. Nearly all this expenditure (\$15.7 million) was for basic operating expenses—instruction, administration, and other general expenses, operation and maintenance of physical plant, and libraries.

Expenses for separately budgeted research (\$0.7 million) and separately organized postgraduate education (\$0.4 million) represented relatively small outlays.

About two-thirds of the income for basic operating expenses was derived in equal shares from two sources—(a) State-city appropriations and university transfers and (b) tuition and fees. Income from clinics met one-fourth of basic operating expenses and the small remainder came from other funds—gifts and grants, endowment income, and miscellaneous sources.

The \$0.7 million spent for separately budgeted research represents \$0.3 million in Federal grants and contracts and \$0.4 million from other sources.

The deans of the dental schools indicated the need for an additional \$7 million a year to meet operating expenses and \$50 million to improve and expand physical facilities and equipment. These estimates refer to the enrollment of 1949-50 (11,359 undergraduate dental students) and to price and salary levels of that year.

In the same year the 18 schools of dental hygiene had basic operating expenses of \$0.6 million met in equal proportions from (a) State appropriations and transfers from affiliated institutions and (b) tuition and fees.



**Table 5.7.—Operating expenses, unmet needs, sources of income, dental and dental hygiene schools, 1949–50**

<i>Educational Operating Expenses</i>		<i>Millions of dollars</i>
All 4-year schools.....		16.8
Basic expenses.....		15.7
Separately budgeted research.....		.7
Separately organized postgraduate education..		.4
All dental hygiene schools: Basic expenses.....		.6
<i>Unmet Needs—4-year schools <sup>1</sup></i>		
Operating expenses.....		7.0
Physical facilities and equipment.....		50.0
<i>Sources of income</i>		
All 4-year schools.....		16.8
Basic income.....		15.7
State-city appropriations and university transfers.....		5.4
Tuition and fees.....		5.4
Clinic income.....		4.0
Other sources.....		.9
Separately budgeted research.....		.7
Federal grants and contracts.....		.3
Other sources.....		.4
Separately organized postgraduate education..		.4
All dental hygiene schools.....		.6
State appropriations and transfers from affili- ated institutions.....		.3
Tuition and fees.....		.3
Miscellaneous. <sup>2</sup>		

<sup>1</sup> Based on data furnished by the deans of the schools.<sup>2</sup> Approximately \$18,000.

SOURCE: Public Health Service. Financial Status and Needs of Dental Schools. Public Health Service Publication No. 200 (Washington, D. C., 1952).

The nine schools of public health in operation in 1949-50 spent \$4.5 million—\$3.0 million for basic operating expenses and \$1.5 million for separately budgeted research. Basic operating expenses represent outlays for instruction, administration, and other general expenses, operation and maintenance of physical plant, and libraries.

Nearly half (\$1.2 million) of the income for basic operating expenses came from State appropriations and university transfers. Tuition and fees provided only \$0.4 million, gifts and grants furnished twice that amount, and endowment income provided \$0.6 million.

Federal grants and contracts furnished \$0.8 million of the \$1.5 million expended for separately budgeted research; income from all other sources for this item totaled \$0.7 million.

The deans of the schools estimate that an additional \$3 million was needed annually for basic operating expenses and \$10 million was required to improve and expand facilities and equipment. At that time the nine schools had 678 graduate students, 395 undergraduate students, and 166 special students.

These estimates of additional funds needed were based on that enrollment. To carry forward plans for a 90 percent increase in enrollment of graduate students, the deans indicated that the schools would require \$1.3 million more for basic operations and \$4.4 million for construction over and above the additional sums needed for the 1949-50 enrollment.

Table 5.8.—Cost of public health education, 1949–50

<i>Educational Operating Expenses</i>		<i>Sources of Income</i>	
	<i>Millions of dollars</i>		<i>Millions of dollar</i>
All schools of public health .....	4. 5	All schools of public health .....	4. 5
Basic expenses .....	3. 0	Basic income .....	3. 0
Separately budgeted research .....	1. 5	State appropriations and university trans- fers .....	1. 2
<i>Statement of Unmet Needs Based on Data Furnished by Deans</i>		Tuition and fees .....	. 4
Operating expenses .....	3. 0	Gifts and grants .....	. 8
Physical facilities and equipment .....	10. 0	Endowment income .....	. 6
		Miscellaneous .....	(approximately \$50,000)
		Separately budgeted research .....	1. 5
		Federal grants and contracts .....	. 8
		Other sources .....	. 7

SOURCE: Public Health Service. Study of Schools of Public Health, 1950. Unpublished. (Washington, D. C., 1952.)



In 1949, the Committee for the Improvement of Nursing Services made a survey of nursing schools, which resulted in a classification into Groups I, II, and III. Group I schools were those which most nearly approached professional standards. About a quarter of all schools were in Group I, a half in Group II, and a quarter—the poorest schools—in Group III.

The study showed that the cost per student was higher in the good schools, but that in schools of a given quality group, the cost per student decreased as the size of school increased.

**Table 5.9.—Average cost of instructing students by size of school, 1949**

[Cost per student]

Group	Number of students			
	50	100	150	200
Group I:				
Collegiate.....	\$580	\$380	\$315	\$285
Hospital.....	540	360	300	270
Group II.....	310	220	190	175
Group III.....	180	150	-----	-----

SOURCE: Margaret West and Christy Hawkins. Nursing Schools at the Mid-Century, p. 49, table 28. National

Committee for the Improvement of Nursing Services (New York City, N. Y., 1950).

Hospital funds represent the major income in most nursing schools. In all the schools, tuition and fees amounted to a quarter of the total, while payments by hospitals made up two-thirds. Hospital funds made up about three-quarters of the income of hospital schools, but only three-tenths of that of collegiate schools.

Private collegiate schools secured 45 percent of their income from tuition and fees, in contrast to the 13 percent from this source reported by the State universities.

Table 5.10.—Percentage distribution of sources of income of schools of nursing, 1949

Source of income	Percent of income			
	All schools	Collegiate schools		Hospital schools
		Public	Private	
Total.....	100	100	100	100
Tuition and fees.....	24	13	45	22
Gifts and endowments.....	3	6	15	1
State and local funds.....	4	12	1	3
University and college funds.....	4	38	10	(1)
Hospital funds.....	65	31	29	74

<sup>1</sup> Less than 0.5 percent.

Committee for the Improvement of Nursing Services (New York City, N. Y. 1950).

SOURCE: Margaret West and Christy Hawkins. Nursing Schools at the Mid-Century, p. 50, table 29. National

The student nurse pays part of the cost of her nursing education in services to hospitals; part in tuition and fees, and part in payment for books and uniforms. In most of the degree programs, and in a few of the diploma programs, the student makes cash payment for part or all of her maintenance.

The total dollar cost to the student for the three-year program leading to a diploma ranges from no charge (in 49 schools) to more than \$1,000 (in three schools). The usual total charge in the diploma program of a Group I school is about \$350; in Group II, it is \$250; in Group III, \$150.

The cost of a degree program is much higher than a diploma program because of the added length of the course and the added maintenance cost during the non-clinical years. These costs range from less than \$600 to more than \$4,000, with a median of \$1,800.



Table 5.11.—Total cost of nursing education to the student, including tuition, maintenance, books, and uniforms, 1949

Cost to the student	Number of schools				
	Degree program	Diploma program			
		Collegiate	Hospital schools in group		
			I	II	III
Total.....	106	53	208	569	263
No charges.....			1	13	35
Under \$100.....		2	3	29	25
\$100-\$199.....		3	30	147	93
\$200-\$299.....		7	56	202	66
\$300-\$399.....		14	73	129	17
\$400-\$499.....		13	22	24	1
\$500-\$599.....	1	3	11	8	2
\$600-\$699.....	1	4	2	5	
\$700-\$799.....	2		3	1	
\$800-\$899.....	1	1			
\$900-\$999.....	1		1		
\$1,000-\$1,499.....	14	2	1		
\$1,500-\$1,999.....	19				
\$2,000-\$2,499.....	13				
\$2,500-\$2,999.....	14				
\$3,000-\$3,499.....	3				
\$3,500-\$3,999.....					
\$4,000-\$4,499.....	2				
Academic part of program not reported.....	4				
No information.....	31	4	5	11	24

SOURCE: Margaret West and Christy Hawkins. Nursing Schools at the Mid-Century, p. 50, table 30. National

Committee for the Improvement of Nursing Services (New York City, N. Y. 1950).

## 6. INCOMES OF PERSONNEL

Physicians in private practice, including both general practitioners and specialists, generally have higher incomes than physicians in other types of practice. The average net income of all physicians in independent practice in 1949 was \$11,309; the highest salaried group earned an average net income of \$9,325. The lowest salaried groups worked for the State and local governments and earned an average net income of only \$6,215.

Table 6.1.—Average net income of physicians by type of practice, 1949

Type of practice	Number in sample <sup>1</sup>	Average net income	Type of practice	Number in sample <sup>1</sup>	Average net income
Total-----	41, 745	\$10, 561	Salaried nonprofit organization---	442	9, 325
Private practice-----	33, 528	11, 309	Salaried local government-----	922	6, 215
Salaried industrial service-----	625	8, 456	Salaried Federal civilian agency---	853	7, 060
Salaried non-Federal hospitals----	1, 750	9, 212	Other salaried physicians-----	756	7, 594
Salaried Federal civilian hospitals-	1, 048	7, 576	Unknown-----	1, 821	7, 344

<sup>1</sup> Excludes interns, residents, fellows, medical school faculty members, and members of the Armed Forces.

SOURCE: Office of Defense Mobilization. Unpublished data compiled by Health Resources Advisory Committee from questionnaires from joint Department of Commerce-

American Medical Association Survey of the Medical Profession (Washington, D. C., 1951). For explanatory detail see: William Weinfeld, *Income of Physicians, 1929-49*. Survey of Current Business, vol. 31, pp. 25-26. Department of Commerce (Washington, D. C., July 1951).

Age is one of the most important factors accounting for income differentials among physicians. Since training of physicians lasts for so many years, physicians' incomes are low until after age 35 and accelerate rapidly to a peak between ages 45 and 54. Average income at the peak earning years is 40 percent above the average incomes of physicians under 35. Physicians age 65 and over have average net incomes below that for any other age group including those under 35. During 1949 the average net income of all physicians over 65 was less than \$5,400, or only a little more than half the average net income for physicians of all ages.

Table 6.2.—Average net income earned by physicians, by age groups, 1949

Age group	Number in sample <sup>1</sup>	Average net income	
		Mean	Median
Total.....	41, 745	\$10, 561	\$8, 400
Under 35 years.....	6, 544	7, 786	6, 300
35-44 years.....	13, 982	12, 429	10, 200
45-54 years.....	8, 943	13, 487	10, 600
55-64 years.....	5, 550	10, 979	7, 900
65+ years.....	5, 006	5, 367	3, 300
Unknown.....	1, 720	11, 968	8, 200

<sup>1</sup> Excludes interns, residents, fellows, medical school faculty members, and members of the Armed Forces.

SOURCE: Office of Defense Mobilization. Unpublished data compiled by Health Resources Advisory Committee from questionnaires from joint Department of Commerce-

American Medical Association Survey of the Medical Profession (Washington, D C , 1951). For explanatory detail see: William Weinfeld, Income of Physicians, 1929-49. Survey of Current Business, vol. 31, pp. 25-26. Department of Commerce (Washington, D. C., July 1951).



Average income for all general practitioners and specialists in private practice averaged \$11,300 in 1949. Physicians in the far West had the highest income, 17 percent above the United States average, and physicians in the New England States had the lowest average income, 17 percent below the average for all physicians in private practice. For the United States, specialists' income was about 50 percent higher than that of general practitioners and part specialists. The spread between full specialists and other physicians varied widely from region to region—in the Far West, where physicians' incomes were highest, average net income of specialists was only 25 percent above that of other physicians; in New England specialists' income was 75 percent higher.

Physicians' incomes do not closely reflect variations in the per capita incomes of the population in the region. The Southeastern States, for example, ranked fifth in private physicians' income and last in per capita income for the whole population; physicians in New England, which ranked fourth in per capita income, had the lowest average net income of all the regional groups.

Table 6.3.—Average net income of general practitioners and specialists in private practice, by region, 1949

Region	General practitioners and full specialists <sup>1</sup>			General practitioners <sup>2</sup>			Full specialists		
	Number in sample	Mean	Median	Number in sample	Mean	Median	Number in sample	Mean	Median
United States.....	33, 528	\$11, 309	\$9, 539	19, 642	\$9, 294	\$7, 800	13, 886	\$14, 033	\$12, 000
New England.....	2, 419	9, 355	7, 862	1, 361	7, 025	6, 200	1, 058	12, 352	10, 000
Central Atlantic.....	9, 893	9, 884	8, 036	5, 550	7, 612	6, 500	4, 343	12, 789	10, 000
Southeast.....	4, 739	11, 504	9, 591	2, 851	9, 317	7, 400	1, 888	14, 808	12, 900
Southwest.....	2, 163	12, 586	10, 453	1, 303	11, 026	9, 300	860	14, 856	12, 200
East North Central.....	6, 385	12, 135	10, 314	3, 931	10, 109	8, 700	2, 454	15, 381	12, 900
West North Central.....	3, 078	11, 940	10, 087	2, 038	10, 242	8, 600	1, 040	15, 268	13, 000
Rocky Mountain.....	802	11, 235	9, 910	508	9, 912	8, 700	294	13, 522	12, 000
Far West.....	4, 049	13, 276	11, 348	2, 100	11, 819	10, 000	1, 949	14, 840	12, 800

<sup>1</sup> Includes salaried physicians in private practice; i. e., those working for independent physicians.

<sup>2</sup> Includes part specialists.

SOURCE: Office of Defense Mobilization. Unpublished data compiled by Health Resources Advisory Committee from questionnaires from joint Department of Com-

merce-American Medical Association Survey of the Medical Profession (Washington, D. C., 1951). For explanatory detail see: William Weinfeld. Income of Physicians, 1929-49. Survey of Current Business, vol. 31, pp. 25-26. Department of Commerce (Washington, D. C., July 1951)

In 1949, the highest net incomes were earned by physicians in the specialties of neurological surgery, orthopedic surgery and roentgenology-radiology. In general, the highest incomes among full specialists were earned in those specialties having relatively few members. The average net income of neurologic surgeons was more than twice that of anesthetists, internists, and pediatricians.

**Table 6.4.—Average net income of general practitioners and specialists in private practice with major source of income from independent and salaried practice, by specialty, 1949**

Specialty	Number in sample <sup>1</sup>	Average net income	
		Mean	Median
Total.....	33, 528	\$11, 309	\$9, 539
General practice <sup>2</sup> .....	19, 642	9, 294	7, 800
Allergy.....	110	13, 354	12, 000
Anesthesia.....	274	11, 984	11, 500
Dermatology and syphilology.....	480	13, 411	10, 200
Gynecology and obstetrics.....	1, 471	15, 996	13, 000
Internal medicine <sup>3</sup> .....	2, 465	11, 915	10, 100
Neurological surgery.....	105	23, 937	20, 700
Neurology and psychiatry.....	826	14, 207	12, 100
Ophthalmology and otolaryngology.....	2, 265	12, 972	10, 800
Orthopedic surgery.....	495	17, 490	14, 000
Pathology <sup>4</sup> .....	97	16, 231	16, 000
Pediatrics.....	1, 308	11, 480	10, 000
Roentgenology-radiology.....	521	17, 337	14, 700
Surgery <sup>5</sup> .....	2, 097	16, 400	13, 500
Urology.....	544	15, 266	12, 000
Other <sup>6</sup> .....	376	9, 863	8, 100
Multiple.....	452	14, 670	13, 000

<sup>1</sup> Includes salaried physicians in private practice; i.e., those working for independent physicians.

<sup>2</sup> Includes part specialists.

<sup>3</sup> Includes internal medicine, gastroenterology, and tuberculosis and cardiology.

<sup>4</sup> Includes clinical pathology and pathology.

<sup>5</sup> Includes surgery, plastic surgery, thoracic surgery and proctology.

<sup>6</sup> Includes physical medicine, public health and pre-

ventive medicine, industrial practice and unknown.

SOURCE: Office of Defense Mobilization. Unpublished data compiled by Health Resources Advisory Committee from questionnaires from joint Department of Commerce-American Medical Association Survey of the Medical Profession (Washington, D. C., 1951). For explanatory detail see: William Weinfeld. *Income of Physicians, 1929-49*. Survey of Current Business, vol. 31, pp. 25-26. Department of Commerce (Washington, D. C., July 1951).



The size of the community in which physicians practice is directly related to the size of their net earnings. Physicians in very small communities and those in cities of over a million have significantly lower average net incomes than physicians in cities of under one million. Specialists in cities with a population of between 250,000 and 500,000 had the highest incomes, while among general practitioners the highest incomes were earned in cities of 10,000 to 25,000.

Table 6.5.—Average net income of general practitioners and specialists in private practice, by size of community, 1949

Size of community	General practitioners and full specialists <sup>1</sup>			General practitioners <sup>2</sup>			Full specialists		
	Total sample	Average net income		Total sample	Average net income		Total sample	Average net income	
		Mean	Median		Mean	Median		Mean	Median
Total .....	33, 528	\$11, 309	\$9, 539	19, 642	\$9, 294	\$7, 800	13, 886	\$14, 033	\$12, 000
0-2,499 .....	3, 491	7, 769	6, 625	3, 394	7, 680	6, 600	97	10, 894	7, 500
2,500-9,999 .....	4, 113	10, 977	9, 649	3, 612	10, 767	9, 600	501	12, 493	10, 000
10,000-24,999 .....	3, 384	11, 637	10, 237	2, 295	10, 928	9, 400	1, 089	13, 131	12, 000
25,000-49,999 .....	2, 975	12, 478	10, 515	1, 516	10, 466	8, 900	1, 459	14, 568	12, 200
50,000-99,999 .....	2, 945	12, 500	10, 314	1, 396	10, 037	8, 000	1, 549	14, 720	12, 400
100,000-249,999 .....	3, 621	12, 433	10, 190	1, 560	9, 377	7, 800	2, 061	14, 747	12, 000
250,000-499,999 .....	2, 869	13, 230	11, 104	1, 171	10, 109	8, 500	1, 698	15, 382	12, 900
500,000-999,999 .....	3, 540	12, 503	10, 008	1, 410	8, 992	7, 000	2, 130	14, 828	12, 000
1,000,000 and over .....	6, 317	10, 111	8, 058	3, 067	7, 306	6, 000	3, 250	12, 758	10, 000
Unknown .....	273	8, 507	6, 738	221	7, 143	5, 500	52	14, 305	12, 000

<sup>1</sup> Includes salaried physicians in private practice; i. e., those working for independent physicians.

<sup>2</sup> Includes part specialists.

SOURCE: Office of Defense Mobilization. Unpublished data compiled by Health Resources Advisory Committee from questionnaires from joint Department of Commerce-

American Medical Association Survey of the Medical Profession (Washington, D. C. 1951). For explanatory detail see: William Weinfeld. Income of Physicians, 1929-49. Survey of Current Business, vol. 31, pp. 25-26. Department of Commerce (Washington, D. C., July 1951).

The following table and chart show the trend in physicians' and dentists' net incomes since 1929 compared with the trend in incomes for lawyers and for all wage and salary earners and self-employed persons in the United States. These income data for physicians in 1949 differ from those in the preceding tables because, in this table, a smaller sample was used and because physicians were classified by type of practice rather than by salaried or non-salaried practice.

Since 1936 the net income of all earners has almost trebled. Physicians' net income has increased 187 percent and dentists' net income by 180 percent compared with a 112 percent increase for lawyers and a 197 percent increase for all groups of earners. In 1951 physicians' net income greatly exceeded that of dentists and lawyers and was three and one-half times the incomes of those in all occupations or business. The relative position of physicians to other occupational groups has remained roughly the same except with respect to lawyers whose average net income exceeded that of physicians up until World War II but whose average net income is now only two-thirds as great as physicians' net incomes.

Data on non-salaried earners are available for all years since 1929 and permit a comparison of income trends during the depression years. During the depression, incomes of the three professional groups shown fell less than the incomes of other non-salaried persons. The demand for legal services apparently remained at a high level, with lawyers' incomes falling only 30 percent between 1929 and 1933 compared with a drop of nearly 50 percent in the incomes of non-salaried physicians and dentists.

Table 6.6.—Average net incomes of physicians, dentists, and lawyers compared with those of all earners, 1929–51

Year	All earners <sup>1</sup>	All physicians <sup>2</sup>	All dentists	All lawyers <sup>3</sup>	Nonfarm self-employed	Nonsalaried physicians	Nonsalaried dentists	Nonsalaried lawyers
1929	\$1,403	(4)	(4)	(4)	\$1,713	\$5,224	\$4,267	\$5,534
1930	1,300	(4)	(4)	(4)	1,460	4,870	4,020	5,194
1931	1,159	(4)	(4)	(4)	1,118	4,178	3,422	5,090
1932	947	(4)	(4)	(4)	687	3,178	2,479	4,156
1933	904	(4)	(4)	(4)	636	2,948	2,188	3,868
1934	980	(4)	(4)	(4)	922	3,382	2,391	4,218
1935	1,099	(4)	(4)	(4)	1,065	3,695	2,485	4,272
1936	1,141	\$4,365	\$2,769	\$4,411	1,269	4,204	2,726	4,394
1937	1,250	4,438	2,914	4,511	1,362	4,285	2,883	4,483
1938	1,195	4,252	(4)	(4)	1,293	4,093	2,870	4,273
1939	1,236	4,398	(4)	4,417	1,364	4,229	3,096	4,391
1940	1,294	4,575	(4)	(4)	1,535	4,441	3,314	4,507
1941	1,490	5,179	3,773	4,832	1,936	5,047	3,782	4,794
1942	1,829	(4)	(4)	(4)	2,609	6,735	4,625	5,527
1943	2,100	(4)	(4)	6,064	3,392	8,370	5,715	5,945
1944	2,266	(4)	6,603	6,605	3,854	9,802	6,649	6,504
1945	2,370	10,242	6,871	6,914	3,885	10,975	6,922	6,861
1946	2,559	9,493	6,316	6,935	3,752	10,202	6,381	6,951
1947	2,719	10,112	6,571	7,532	3,345	10,726	6,610	7,437
1948	2,969	10,634	6,912	8,315	3,619	11,327	7,039	8,121
1949	2,925	<sup>5</sup> 11,058	7,037	8,577	3,549	<sup>5</sup> 11,744	7,146	8,083
1950	3,105	11,538	7,293	9,072	3,828	12,324	7,436	8,540
1951	3,384	12,518	7,743	9,375	4,182	13,432	7,820	8,730

<sup>1</sup> "All earners" includes all individuals in the United States who work for pay or profit.

<sup>2</sup> For the years 1936–41 the data include only those physicians in the "medical service" classification—which is confined to physicians engaged in independent practice (either alone or as members of a partnership) and to physicians employed by such independent practitioners. Physicians employed by hospitals (including interns and residents) schools, private firms, and Government units are excluded. Since 1945 the data include all civilian physicians (except interns and residents) without regard to the source of their income. Comparable data for the earlier years are not available; however, in 1949 the mean net income of physicians in the "medical service industry" was \$11,612, as against \$11,058 for all physicians.

<sup>3</sup> For the years 1936–41 the data include only those lawyers in the "legal service industry"—which is confined to independent practitioners and the lawyers they employed. Since 1943 all lawyers are included. Com-

parable data for the earlier years are not available; however, in 1949 the mean net income of lawyers in the "legal service industry" was \$7,341, as against \$8,577 for all lawyers.

<sup>4</sup> No data available.

<sup>5</sup> Differs from income in preceding tables; data in this table are based on total tabulated returns of 29,878 compared with tabulated returns of 41,745 in tables 6.1 through 6.5.

SOURCES: Department of Commerce, 1951 National Income Supplement to the Survey of Current Business, pp. 150, 180, 181, 186, 187, 188, 189 (Washington, D. C.). Department of Commerce. Survey of Current Business, vol. 32, No. 7, pp. 12, 13, 22, 23 (Washington, D. C., July 1952).

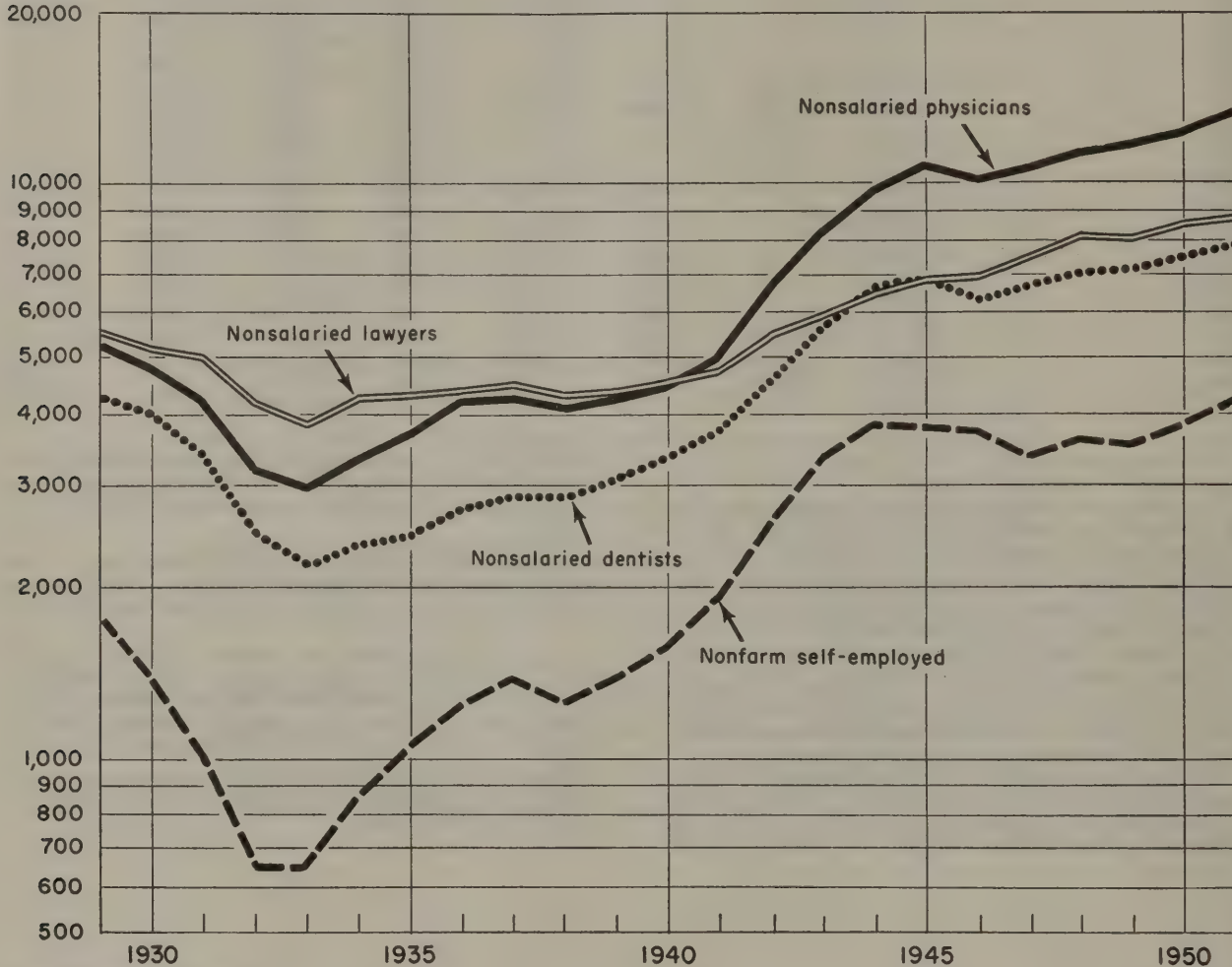
William Weinfeld. Income of Physicians, 1929–49. Survey of Current Business, vol. 31, No. 7, pp. 9–26 (Washington, D. C., July 1951).



Chart 6A.—Average net income of nonsalaried physicians, dentists and lawyers compared with that of all nonfarm self-employed, 1929–51.

Mean net income  
(Dollars)

20,000



Source: Department of Commerce

About 90 percent of all dentists receive all of their professional income from non-salaried practice. The average net income of these non-salaried dentists has increased 83 percent since 1929 and nearly 10 percent during the two years, 1949 to 1951. Dentists whose major source of income was from independent practice and who received some salaried income have a higher average net income than do dentists who receive no salaried income. Dentists whose principal source of income is from salaried practice, however, have lower incomes than dentists whose principal income is from independent private practice.

Table 6.7.—Average net income of dentists by form of practice, selected years, 1929–51

Form of practice	Average net income <sup>1</sup>				
	1929	1940	1949	1950	1951
All dentists.....	(2)	(2)	\$7, 037	\$7, 293	\$7, 743
Nonsalaried dentists <sup>3</sup> .....	\$4, 267	\$3, 314	7, 146	7, 436	7, 820
Major independent dentists <sup>4</sup> .....	(2)	(2)	7, 168	7, 468	7, 856

<sup>1</sup> Net income refers to salaried income from professional work plus net income from independent professional practice. All nonprofessional income is excluded and all income is before payment of taxes.

<sup>2</sup> Not available.

<sup>3</sup> Dentists whose sole source of income was from non-salaried practice; included in the groups called major independent. Nonsalaried dentists have accounted for between 89 and 94 percent of all dentists since 1929.

<sup>4</sup> Dentists whose sole or major source of income was from nonsalaried practice but who received some salary income.

SOURCES: Income of Physicians, Dentists and Lawyers, 1949–51. Survey of Current Business, July 1952, vol. 32, No. 7, pp. 6–7 (Washington, D. C.).

William Weinfeld. Income of Dentists, 1929–48. Survey of Current Business, January 1950, vol. 30, No. 1, p. 8 (Washington, D. C.).

Dentists reach their peak earning years, 40-44, earlier than do physicians. After age 55, average net earnings drop rapidly and dentists 65 and over earn only 35 percent as much as dentists between the ages of 40 and 45.

Table 6.8.—Average net income of dentists in independent private practice, by age groups, 1948

Age	Percentage distribution of dentists	Average net income <sup>1</sup>	Age	Percentage distribution of dentists	Average net income <sup>1</sup>
<i>All ages</i> .....	100. 0	\$7, 047	45-49 years.....	10. 6	8, 623
Under 35 years.....	28. 4	6, 076	50-54 years.....	11. 1	8, 307
35-39 years.....	12. 7	9, 032	55-59 years.....	9. 1	7, 144
40-44 years.....	11. 1	9, 308	60-64 years.....	5. 6	5, 058
			65 and over.....	11. 5	3, 206

<sup>1</sup> Average net income of dentists whose major source of income was from private practice; includes net income from independent professional practice and any salaried income. All nonprofessional income is excluded and all income is before payment of income taxes.

SOURCE: William Weinfeld. *Income of Dentists, 1929-1948*. Survey of Current Business, vol. 30, No. 1, p. 15 (Washington, D. C., January 1950).



Dentists in cities of 50,000 to 250,000 received net incomes of over \$8,400, a higher income than dentists in any other size community. In cities of one million or more, where 21 percent of all dentists practice, the average net income was less than \$6,100.

Table 6.9.—Average net income of dentists in independent private practice, by size of community, 1948

Size of Community	Percent of dentists in sample <sup>1</sup>	Average net income <sup>2</sup>	Size of Community	Percent of dentists in sample <sup>1</sup>	Average net income <sup>2</sup>
<i>All communities</i> .....	100. 0	\$7. 047	25,000-49,000 .....	8. 6	8, 145
Under 1,000 .....	3. 6	5, 067	50,000-99,999 .....	7. 2	8, 483
1,000-2,499 .....	6. 9	5, 696	100,000-249,999 .....	9. 3	8, 379
2,500-4,999 .....	6. 3	6, 985	250,000-499,999 .....	9. 2	7, 378
5,000-9,999 .....	7. 8	6, 530	500,000-999,999 .....	8. 8	7, 603
10,000-24,999 .....	11. 7	7, 255	1,000,000 or more .....	20. 6	6, 064

<sup>1</sup> Percent distribution of all dentists; dentists whose major source of income was from independent private practice represented 92 percent of all dentists in 1948.

<sup>2</sup> Net income refers to salaried income from professional work plus net income from independent professional

practice. All nonprofessional is excluded and all income is before payment of taxes.

SOURCE: William Weinfeld. *Income of Dentists, 1929-1948*. Survey of Current Business, vol. 30, No. 1, p. 14 (Washington, D. C., January 1950).

The average monthly salary of the institutional staff nurse living outside the hospital was \$205 in 1949 as compared to \$172 in 1946. The average public health nurse earned \$238 monthly in 1949 whereas she earned \$184 in 1946. Nurse educators' salaries rose from an average of \$207 to \$256 in the three-year period.

Both institutional staff nurses and public health nurses in the Pacific States received higher monthly salaries, on the average, than in any other section of the country. The average for institutional staff nurses in the Pacific States was \$221 per month compared to a low of \$183 in the New England and Southeastern States. For public health nurses the average was \$282 in the Pacific States compared to a low of \$211 and \$215 per month in the New England and Southeastern States, respectively.

Table 6.10.—Average monthly earnings of professional registered nurses, September 1949

Field and position	Number of re- plies	Median monthly earnings <sup>1</sup>									
		United States <sup>2</sup>	New Eng- land	Middle Atlantic	Border States	Southeast	Great Lakes	Middle West	Southwest	Mountain	Pacific
Institutional nurses living outside hos- pital quarters:											
All positions <sup>3</sup> -----	2, 440	\$211	\$191	\$206	\$207	\$192	\$211	\$207	\$220	\$207	\$226
Head nurses-----	664	218	197	217	209	201	220	211	225	220	233
General staff nurses-----	1, 203	205	183	198	200	183	204	202	207	203	221
Public health:											
All positions <sup>3</sup> -----	791	238	211	225	221	215	251	234	233	236	282
Staff nurses-----	378	219	200	212	207	198	222	208	213	235	257
Industrial-----	371	239	208	237	( <sup>4</sup> )	( <sup>4</sup> )	245	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	248
Office-----	719	207	192	198	200	192	208	201	203	203	227
Nurse educators living outside hospital quarters-----	112	256	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )

<sup>1</sup> Actual cash salary.  
<sup>2</sup> States included in each region are: New England—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. Middle Atlantic—New Jersey, New York, Pennsylvania. Border States—Delaware, District of Columbia, Kentucky, Maryland, Virginia, West Virginia. Southeast—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee. Great Lakes—Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin. Middle West—Iowa, Kansas, Missouri, Nebraska, North Dakota, South Dakota. Southwest—

Arkansas, Louisiana, Oklahoma, Texas. Mountain—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, Wyoming. Pacific—California, Nevada, Oregon, Washington.  
<sup>3</sup> Includes positions not shown separately.  
<sup>4</sup> Insufficient number of replies to present an average.  
SOURCE: American Journal of Nursing, vol. 50, No. 6. Salaries of Professional Registered Nurses, p. 330 (New York City, N. Y., June 1950).



Salary increases were reported for all groups of public health workers employed by State health departments from 1950 to 1951, the average percentage increase in median salaries being approximately 9 percent.

From November 1947 to August 1951 the median salary of medical personnel has increased from \$5,800 to \$8,400 (lower level of range), or 45 percent. Sanitation personnel showed a 58 percent salary increase. The other four groups for which 1947 data are available had salary raises between 20 and 35 percent.

Table 6.11.—Median salary range of State public health workers by occupational group, 1950–51

Occupational group	Median salary range		Percentage change in lower limits of median salary intervals.			
	August 1950	August 1951	1947–48	1948–49	1949–50	1950–51
Medical personnel.....	\$7, 600–\$7, 799	\$8, 400–\$8, 599	+7	+16	+6	+11
Sanitary engineers.....	4, 200– 4, 399	4, 800– 4, 999	+5	+5	–5	+14
Sanitation personnel.....	3, 600– 3, 799	3, 800– 3, 999	+17	+28	–	+6
Professional laboratory personnel.....	3, 200– 3, 399	3, 400– 3, 599	+7	–	+7	+6
Supervisory and consultant public health nurses.....	3, 800– 3, 899	4, 200– 4, 299	+7	+12	+3	+11
Nutritionists.....	3, 600– 3, 799	3, 800– 3, 999	+7	+6	+6	+6
Health educators.....	3, 800– 3, 999	4, 200– 4, 399	(1)	+6	+6	+11
Statisticians.....	3, 400– 3, 599	3, 800– 3, 999	(1)	(1)	+6	+12
Business management officers.....	5, 400– 5, 599	5, 600– 5, 799	(1)	(1)	(1)	+4

<sup>1</sup> Data not available.

SOURCE: Public Health Service. Salaries of State Public Health Workers, August 1951. Prepared in

cooperation with the Association of State and Territorial Health Officers and the American Public Health Association (Washington, D. C., October 1951).

Salaries for public-health workers employed in local health units serving areas of from 50,000 to 250,000 population rose in 1952 over 1950 levels in all except one of the occupational classifications for which data are available. No change was reported between April 1950 and April 1952 for salaries of health educators. Increases since April 1950 in the lower limits of median salary intervals were \$600 for local health officers and \$800 for professional laboratory workers.

Table 6.12.—Median salary range of local public health workers by occupational group, 1950–52

Occupational group <sup>1</sup>	Median salary range		Percentage change in lower limits of median salary intervals		
	April 1950	April 1952	1948–49	1949–50	1950–52
Local health officers.....	\$7, 800–7, 999	\$8, 400–8, 599	+11	+8	+8
Sanitary engineers.....	4, 600–4, 799	5, 000–5, 199	+4	+15	+9
Sanitarians (including other sanitation personnel).....	3, 000–3, 199	3, 200–3, 399	+6	+7	+7
Sanitarians.....	( <sup>2</sup> )	3, 400–3, 599	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Other sanitation personnel.....	( <sup>2</sup> )	3, 200–3, 399	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Public-health physicians (exclusive of health officers).....	( <sup>2</sup> )	7, 000–7, 199	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Dentists.....	( <sup>2</sup> )	5, 600–5, 799	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Veterinarians.....	( <sup>2</sup> )	4, 600–4, 799	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Professional laboratory workers.....	3, 000–3, 199	3, 800–3, 999	+14	—	+27
Supervising public health nurses.....	3, 400–3, 499	4, 000–4, 099	+10	+3	+18
Staff public health nurses.....	2, 700–2, 799	3, 000–3, 099	+8	+4	+11
Clinic nurses.....	( <sup>2</sup> )	2, 800–2, 899	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Health educators.....	3, 600–3, 799	3, 600–3, 799	+18	+6	—

<sup>1</sup> Data for full time local health units serving jurisdiction of 50,000 to 250,000 population.

<sup>2</sup> Data not available.

SOURCE: Public Health Service. Salaries of Local Public-Health Workers. Prepared in cooperation with the Association of State and Territorial Health Officers and the National Organization for Public Health Nursing (Washington, D. C., June 1952).

## 7. HOSPITAL SERVICES AND CONSTRUCTION

General and special short-term non-Federal hospitals represent 74 percent of all hospitals; mental and allied, 8 percent; and long-term and tuberculosis hospitals each about 6 percent. With respect to beds, however, 43 percent are in mental hospitals while 34 percent are in the general and special short-term hospitals.

In 1951, the assets of all hospitals amounted to more than \$8 billion or about \$54 for each man, woman, and child in the country. Of this investment in hospital facilities, 42 percent is represented by the voluntary nonprofit general hospitals.

On the average, each bed in these voluntary general hospitals represents a capital investment of \$6,500. Federal hospital beds are a close second, constituting an investment of \$6,300 each.



Table 7.1.—Number of hospitals and beds and estimates of total and plant assets, by type of hospital and type of control, 1951

Type of hospital and type of control	Number of hospitals	Number of beds	Total assets <sup>1</sup> (thousands of dollars)	Plant assets	
				Total (thousands of dollars)	Per bed
All hospitals.....	6,832	1,521,959	8,205,787	6,431,111	\$4,226
Non-Federal.....	6,410	1,307,362	6,766,785	5,078,344	3,884
GENERAL AND SPECIAL					
Short-term.....	5,066	516,020	4,518,493	3,107,516	6,022
Nonprofit.....	2,922	344,775	3,459,520	2,231,437	6,472
Proprietary.....	1,155	39,216	140,677	114,490	2,919
Governmental <sup>2</sup> .....	989	132,029	918,296	761,589	5,768
Long-term.....	394	62,768	351,416	244,987	3,903
Nonprofit.....	221	20,285	161,904	93,279	4,598
Proprietary.....	75	3,100	7,039	5,464	1,763
Governmental <sup>2</sup> .....	98	39,383	182,473	146,244	3,713
Mental and allied.....	551	655,932	1,475,560	1,363,440	2,079
Nonprofit.....	75	9,829	64,482	47,175	4,800
Proprietary.....	157	10,145	30,249	23,315	2,298
Governmental <sup>2</sup> .....	319	635,958	1,380,829	1,292,950	2,033
Tuberculosis.....	399	72,642	421,316	362,401	4,989
Nonprofit.....	79	8,213	53,244	31,642	3,853
Proprietary.....	25	1,282	2,673	2,260	1,763
Governmental <sup>2</sup> .....	295	63,147	365,399	328,499	5,202
Federal.....	422	214,597	1,439,002	1,352,767	6,304

<sup>1</sup> Hospital assets include hospital buildings, equipment, inventories of supplies, accounts and notes receivable, deferred charges, investments, endowment fund assets, temporary fund assets and other assets.

<sup>2</sup> Excludes Federal hospitals.

SOURCE: American Hospital Association. Hospitals—Administrators Guide Issue, pt. II, p. 4. (Chicago, Ill., June 1952).

Voluntary nonprofit hospitals account for 25 percent of the Nation's hospital beds while Federal, State, and local governmental hospitals have 72 percent of all beds. More patients are admitted to voluntary hospitals than to governmental hospitals; 65 percent of all admissions are to voluntary hospitals compared with 27 percent to governmental hospitals.

Governments are chiefly responsible for the care of the mentally ill, the tuberculous, and other patients requiring long periods of hospitalization. This accounts in part for the lower number of admissions to governmental hospitals in spite of their larger bed capacity and greater number of days provided.

Table 7.2.—Distribution of hospitals, beds, admissions, days of care provided, and percentage of beds occupied, by type of control of hospital, 1951

Type of control	Hospitals		Beds		Admissions		Days of care provided	Percent of beds occupied
	Number	Percent	Number	Percent	Number	Percent		
All hospitals.....	<sup>1</sup> 6, 637	100. 0	1, 529, 988	100. 0	18, 237, 118	100. 0	427, 183, 345	84. 5
Governmental.....	2, 032	30. 6	1, 097, 720	71. 8	4, 866, 415	26. 7	355, 171, 280	88. 6
Federal.....	388	5. 8	216, 939	14. 2	1, 489, 581	8. 2	61, 244, 080	77. 3
State.....	554	8. 4	683, 376	44. 7	767, 599	4. 2	235, 670, 280	94. 5
County.....	633	9. 5	107, 458	7. 0	1, 066, 562	5. 8	32, 459, 815	82. 8
City.....	377	5. 7	77, 736	5. 1	1, 257, 575	6. 9	22, 309, 895	78. 6
City-County.....	80	1. 2	12, 211	0. 8	285, 098	1. 6	3, 487, 210	78. 2
Nongovernmental.....	4, 605	69. 4	432, 268	28. 2	13, 370, 703	73. 3	117, 012, 065	74. 1
Nonprofit.....	3, 237	48. 8	379, 956	24. 8	11, 848, 010	65. 0	104, 444, 385	75. 3
Proprietary.....	1, 368	20. 6	52, 312	3. 4	1, 522, 693	8. 3	12, 567, 680	65. 8

<sup>1</sup> Differs from total in table 7.1 because of different source used. The American Medical Association data are for the end of the year whereas the American Hospital Association counts the number of beds as of September 30; further differences arise because the American Hospital Association includes hospitals other than those registered with the American Medical Association and because the

American Hospital Association asks for bed complement, whereas the American Medical Association asks for beds available for patients at time of reporting.

SOURCE: F. H. Arestad and Mary A. McGovern. Hospital Service in the United States: The 1951 Census of Hospitals. Journal of the American Medical Association, Hospital No., pp. 4, 12 (Chicago, Ill., May 10, 1952).

While total hospital admissions have increased about 20 percent since 1946, the Nation's total hospital bill of almost \$4 billion in 1951 was nearly double that of 1946. This is, of course, a result of many factors, including increases in payroll, food, equipment, and supply costs; more complex services; and a shorter average length of hospital stay.

Table 7.3.—Total expenses of all hospitals, 1946–51

Year	Total expenses		Year	Total expenses	
	Amount (thousands of dollars)	Per patient day		Amount (thousands of dollars)	Per patient day
1946-----	1, 963, 355	\$5. 21	1949-----	3, 486, 109	\$7. 70
1947-----	2, 354, 344	5. 42	1950-----	3, 650, 691	7. 98
1948-----	2, 875, 478	6. 35	1951-----	3, 912, 596	8. 26

SOURCE: American Hospital Association. Hospitals-Administrators Guide Issue, pt. II, p. 15 (Chicago, Ill., June 1952).



Hospital operating expenses in the United States approximated \$4 billion in 1951. If all hospitals had included the costs of depreciation in their expense accounts, the total operating expenses would have exceeded this amount. Costs per patient day ranged from a low of \$2.25 in governmental mental hospitals to a high of \$18.01 in short-term general and special nonprofit hospitals.

Table 7.4.—Total hospital expenses and average expenses per patient day, by type of hospital and type of control, 1951

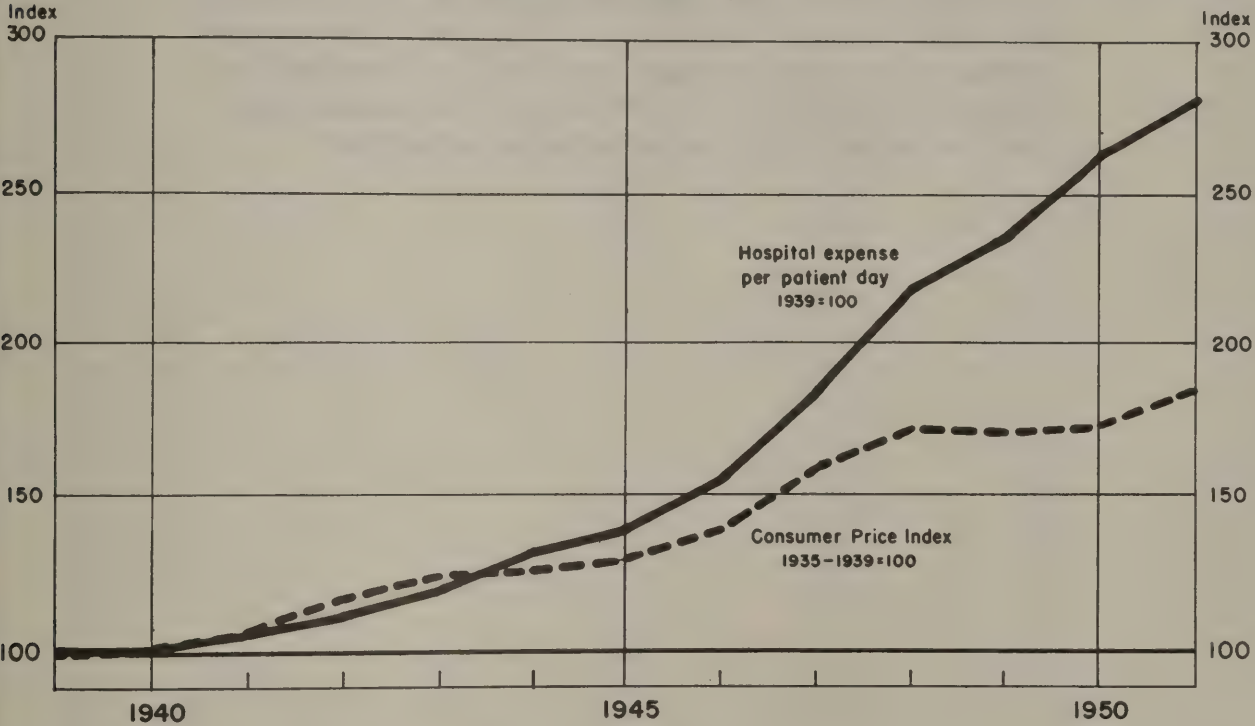
Type of hospital and type of control	Total expenses		Type of hospital and type of control	Total expenses	
	Amount (thousands of dollars)	Per patient day		Amount (thousands of dollars)	Per patient day
All hospitals.....	3,912,596	\$8.26	Non-Federal—Continued		
Non-Federal:			Mental and allied.....	571,339	\$2.46
General and special:			Nonprofit.....	29,081	9.79
Short-term.....	2,313,640	16.77	Proprietary.....	32,738	11.47
Nonprofit.....	1,688,450	18.01	Governmental <sup>1</sup> .....	509,520	2.25
Proprietary.....	139,281	15.60	Tuberculosis.....	166,881	7.37
Governmental <sup>1</sup> ..	485,909	13.77	Nonprofit.....	17,940	7.36
Long-term.....	117,257	6.30	Proprietary.....	2,436	6.87
Nonprofit.....	48,064	8.44	Governmental <sup>1</sup> .....	146,505	7.38
Proprietary.....	5,476	6.25	Federal.....	743,479	11.91
Governmental <sup>1</sup> ..	63,717	5.29			

<sup>1</sup> Excludes Federal hospitals.

SOURCE: American Hospital Association. Hospitals—Administrators Guide Issue, pt. II, p. 16 (Chicago, Ill., June 1952).

The operating costs per patient day in general and special short-term nonprofit hospitals have risen far more rapidly than the cost of all kinds of goods and services (including hospital care) purchased by moderate income families in large cities. Expenses per patient day (operating costs) in general and special short-term nonprofit hospitals rose 180 percent between 1939 and 1951 while the cost of all consumer goods and services rose about 86 percent in the same period.

Chart 7A. Index of expenses per patient day in non-profit general and special short-term hospitals compared with the consumer price index, 1939-51.



Sources: American Hospital Association, Bureau of Labor Statistics

In 1951, total expenses per patient day in short-term general and special non-Federal hospitals ranged from \$11.51 in South Carolina to \$22.18 in Michigan. The national average for these hospitals was \$16.77 per patient day. In general, States in the Far West and New England regions had the highest average expenditures per patient day.



**Table 7.5.—Total income per patient day, total expenses per patient day and patient income per patient day, short-term general and special non-Federal hospitals, by State, 1951**

State	Total income per patient day	Total expenses per patient day	Patient income per patient day
United States.....	<sup>1</sup> \$15. 80	\$16. 77	<sup>1</sup> \$13. 11
Alabama.....	16. 46	15. 66	14. 89
Arizona.....	17. 70	15. 89	16. 26
Arkansas.....	15. 13	14. 45	14. 39
California.....	21. 31	19. 10	16. 22
Colorado.....	16. 66	16. 21	11. 63
Connecticut.....	20. 77	20. 41	18. 86
Delaware.....	21. 15	19. 59	16. 52
District of Columbia <sup>2</sup> .....	18. 47	17. 40	19. 54
Florida.....	18. 75	17. 93	15. 27
Georgia.....	16. 65	14. 85	13. 06
Idaho.....	18. 84	18. 39	16. 67
Illinois.....	19. 43	16. 60	17. 69
Indiana.....	16. 23	16. 35	15. 10
Iowa.....	15. 46	14. 80	14. 11
Kansas.....	14. 84	14. 45	12. 51
Kentucky.....	14. 96	14. 07	12. 86
Louisiana.....	15. 26	14. 21	10. 06
Maine.....	15. 01	14. 78	13. 37
Maryland.....	15. 06	14. 65	14. 82
Massachusetts.....	21. 00	20. 93	17. 66
Michigan.....	23. 34	22. 18	21. 24
Minnesota.....	17. 25	16. 48	14. 52
Mississippi.....	12. 86	12. 10	12. 51
Missouri.....	15. 41	13. 98	13. 31
Montana <sup>3</sup> .....	15. 00	13. 86	14. 05
Nebraska.....	15. 92	14. 51	13. 99
Nevada.....	16. 56	16. 96	14. 11
New Hampshire <sup>4</sup> .....	15. 78	16. 05	8. 94
New Jersey.....	13. 26	16. 15	11. 62
New Mexico <sup>4</sup> .....	16. 04	15. 98	14. 28
New York.....	19. 67	17. 64	16. 36
North Carolina.....	14. 36	13. 79	12. 52
North Dakota.....	14. 47	13. 92	13. 75
Ohio.....	17. 68	17. 03	15. 67
Oklahoma.....	15. 39	13. 67	13. 18
Oregon.....	19. 06	18. 44	16. 05
Pennsylvania.....	14. 32	14. 11	12. 66
Rhode Island <sup>5</sup> .....	20. 94	21. 59	18. 05
South Carolina.....	12. 21	11. 51	10. 17
South Dakota <sup>6</sup> .....	13. 15	12. 68	12. 48
Tennessee.....	18. 05	16. 35	14. 96
Texas.....	19. 44	17. 88	16. 47
Utah.....	17. 80	16. 39	17. 41
Vermont <sup>2</sup> .....	14. 32	18. 06	12. 42
Virginia.....	15. 73	15. 96	13. 50
Washington.....	20. 42	19. 50	16. 41
West Virginia.....	15. 21	13. 73	14. 42
Wisconsin.....	15. 85	15. 30	13. 65
Wyoming.....	15. 17	15. 45	13. 38

<sup>1</sup> 1950 data; 1951 data are not available.<sup>2</sup> Total income and total expense data reported for nonprofit and governmental hospitals; patient income data reported only for nonprofit hospitals.<sup>3</sup> Data not reported for State and local governmental hospitals.<sup>4</sup> Data not reported for proprietary hospitals.<sup>5</sup> Represents data for 13 nonprofit hospitals.<sup>6</sup> Total expense data not reported for proprietary hospitals.

SOURCE: American Hospital Association. Hospitals-Administrators Guide Issue, pt. II, pp. 1-151 (Chicago, Ill., June 1952).

Eighty-three percent of the total income of all short-term general and special hospitals in 1950 came from patients and the remaining 17 percent represented income from grants, contributions, endowments, gifts.

The \$106.76, including insurance benefits, which the patient paid for his hospital stay was, on the average, \$20.50 less than the cost of his stay to the hospital. The balance came from sources other than payment by the patient.

In hospitals of 250 beds and over, total expenses exceeded total income by a little more than 1 percent. In small general and special short-term hospitals, however, the total income slightly exceeded total expenses.

Hospitalization costs per admission in smaller hospitals (less than 100 beds) are usually lower than in hospitals of greater size mostly because of differences in average length of stay. The "stand-by" or "readiness-to-serve" costs of smaller hospitals are lower than in larger hospitals which customarily provide more specialized personnel, supplies, and equipment for furnishing more complex services. Expenses per patient day are about the same in short-term general hospitals of various sizes.

Table 7.6.—Bed capacity, utilization, total and patient income, and expenses of short-term general and special hospitals, 1950

Item <sup>1</sup>	Size of hospital				
	All short-term general and special hospitals <sup>2</sup>	Under 50 beds	50-99 beds	100-249 beds	250 beds and over
Number of hospitals.....	5,031	2,333	1,173	1,089	436
Number of beds.....	504,504	59,612	77,651	166,732	200,509
Admissions.....	16,663,224	2,239,610	2,896,264	6,124,552	5,402,798
Percent of beds occupied.....	73.7	55.1	65.5	74.9	81.4
Average length of stay (days).....	8.1	5.4	6.4	7.4	11.0
Total income:					
Amount (thousands).....	\$2,143,880	\$191,327	\$287,906	\$757,229	\$907,418
Per patient day.....	\$15.80	\$15.96	\$15.51	\$16.61	\$15.23
Patient income: <sup>3</sup>					
Amount (thousands).....	\$1,778,960	\$174,843	\$260,628	\$677,801	\$665,688
Percent of total income.....	83.0	91.4	90.5	89.5	73.4
Per patient day.....	\$13.11	\$14.59	\$14.04	\$14.87	\$11.17
Per admission.....	\$106.76	\$78.07	\$89.99	\$110.67	\$123.21
Expenses:					
Amount (thousands).....	\$2,120,481	\$178,615	\$281,826	\$740,875	\$919,165
Per patient day.....	\$15.62	\$14.90	\$15.19	\$16.25	\$15.43
Per admission.....	\$127.26	\$79.75	\$97.31	\$120.97	\$170.13

<sup>1</sup> Since 1950 is the latest year for which income data are available for all short-term general and special hospitals, all information given in this table is for the year 1950.

<sup>2</sup> Excludes Federal hospitals.

<sup>3</sup> Includes all earnings derived from services to in-patients or ambulatory patients as well as payments received from city, county, or other governmental agencies for the care of specific patients. Excludes free work and allowances and uncollectible accounts or bad debts. The

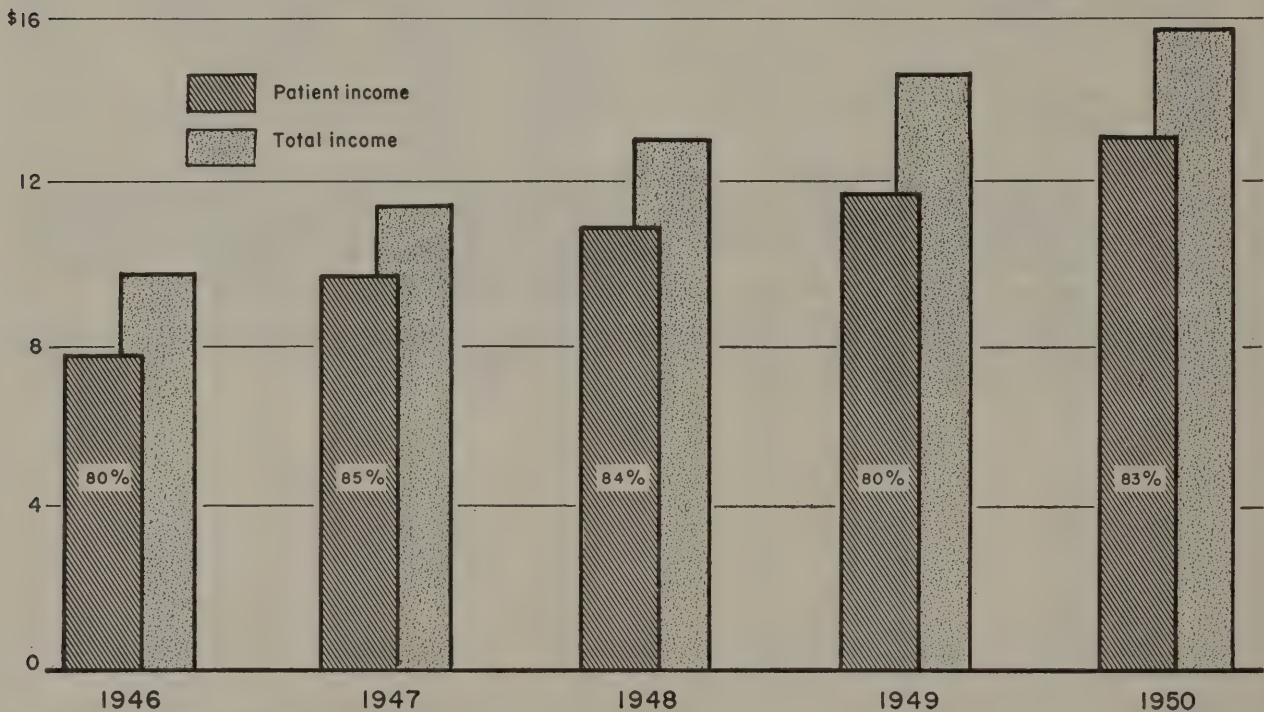
lump-sum payments made to hospitals by official and voluntary agencies, e. g., county welfare departments and community chests, may or may not be included as patient income depending on such factors as accounting practices of individual hospitals, their contractual arrangements with the agencies, and others.

SOURCE: American Hospital Association. Hospitals—Administrators Guide Issue, pt. II, pp. 10, 16 (Chicago, Ill., June 1952).



In 1950, about 83 percent of total income in short-term general and special non-Federal hospitals came from patients. Patient income increased from \$7.75 per patient day in 1946 to \$13.11 in 1950. In the same period total income from all sources rose from \$9.74 to \$15.80 per patient day.

Chart 7B.—Total income and income from patients per patient day in short-term general and special non-Federal hospitals, 1946–50.



Source: American Hospital Association.

Reports from 1,780 non-Federal general hospitals indicate that Blue Cross made payments for 33 percent of the total days of hospital care; commercial insurance, about 19 percent; and various governmental agencies, 8 percent. The remaining 40 percent came from other sources, chiefly direct payments by patients. Blue Cross payments are made for a larger proportion of total patient days in nonprofit hospitals than in proprietary or governmental hospitals. Payments are made by Blue Cross and commercial insurance companies for more than half of the patient days in hospitals of 100 beds or more. Blue Cross payments are made for more than one-third of the total patient days in these larger hospitals.

**Table 7.7.—Number and percentage distribution of total patient days of hospital care in non-Federal general hospitals paid by Blue Cross, commercial insurance, and Government agencies, by type of control and size of hospital, year ending June 1952**

Type of control and size of hospital	Number of hospitals <sup>1</sup> reporting	Total patient days	Blue Cross		Commercial insurance		Government agencies		Other	
			Number of days	Percent	Number of days	Percent	Number of days	Percent	Number of days	Percent
Total.....	1, 780	64, 491, 264	21, 318, 906	33. 1	12, 146, 665	18. 8	5, 061, 757	7. 8	25, 963, 936	40. 3
Nonprofit.....	1, 310	56, 096, 271	19, 262, 668	34. 3	10, 331, 413	18. 4	4, 178, 210	7. 5	22, 323, 980	39. 8
Proprietary.....	191	2, 509, 188	696, 154	27. 8	578, 925	23. 1	91, 537	3. 6	1, 142, 772	45. 5
Governmental.....	279	5, 885, 805	1, 360, 084	23. 1	1, 236, 327	21. 0	792, 210	13. 5	2, 497, 184	42. 4
Size of Hospital										
Total.....	1, 780	64, 491, 264	21, 318, 906	33. 1	12, 146, 665	18. 8	5, 061, 757	7. 8	25, 963, 936	40. 3
Under 50 beds.....	476	3, 826, 881	974, 605	25. 5	784, 657	20. 5	224, 655	5. 9	1, 841, 964	48. 1
50-99 beds.....	518	9, 424, 331	2, 568, 713	27. 3	2, 035, 479	21. 6	593, 145	6. 3	4, 226, 994	44. 8
100-249 beds.....	578	27, 945, 431	9, 392, 482	33. 6	5, 557, 751	19. 9	2, 019, 416	7. 2	10, 975, 782	39. 3
250 beds and over.....	208	23, 294, 621	8, 382, 106	36. 0	3, 768, 778	16. 2	2, 224, 541	9. 5	8, 919, 196	38. 3

<sup>1</sup> Questionnaires were sent to all general hospitals, members of the American Hospital Association, except Federal hospitals and large municipal hospitals caring for indigent patients only.

SOURCE: American Hospital Association. Hospital Rates 1952. The Association, p. 20 (Chicago, Ill., 1952).

The \$3.9 billion spent by all hospitals to care for their more than 18 million patients in 1951 was divided roughly into three-fifths for salaries and wages and two-fifths for food, supplies, and all other expenses.

Hospitals have on their payrolls more than one million full-time employees. The shorter work week has resulted in an increase in the number of hospital employees per 100 patients and this adds to the cost of care. In 1951 hospitals averaged 83 full-time employees per 100 patients.

The short-term general and special hospital has many more employees per 100 patients than the long-term hospital. The voluntary nonprofit short-term general hospital, for example, averages 181 full-time employees per 100 patients while the same type of institution caring for long-term illnesses has only 94 employees per 100 patients. Governmental hospitals caring for mental disease provide only 22 full-time personnel per 100 patients compared to 100 such personnel in non-profit and proprietary hospitals.

Table 7.8.—Total expenses, payroll expenses, number of full-time personnel per 100 patients, by type of hospital and type of control, 1951

Type of hospital and type of control	Total expenses (thousands of dollars)	Payroll expenses			Full-time personnel per 100 patients <sup>1</sup>
		Amount (thousands of dollars)	Per patient day	Percent of total	
All hospitals.....	3, 912, 596	2, 373, 683	\$5. 01	60. 7	83
Non-Federal:					
General and special:					
Short-term.....	2, 313, 640	1, 330, 906	9. 65	57. 5	171
Nonprofit.....	1, 688, 450	953, 427	10. 17	56. 5	181
Proprietary.....	139, 281	69, 097	7. 74	49. 6	155
Governmental <sup>2</sup> .....	485, 909	308, 382	8. 74	63. 5	151
Long-term.....	117, 257	72, 498	3. 89	61. 8	63
Nonprofit.....	48, 064	27, 600	4. 85	57. 4	94
Proprietary.....	5, 476	2, 762	3. 15	50. 4	67
Governmental <sup>2</sup> .....	63, 717	42, 136	3. 50	66. 1	48
Mental and allied.....	571, 339	332, 432	1. 43	58. 2	24
Nonprofit.....	29, 081	16, 522	5. 56	56. 8	99
Proprietary.....	32, 738	17, 652	6. 18	53. 9	96
Governmental <sup>2</sup> .....	509, 520	298, 258	1. 32	58. 5	22
Tuberculosis.....	166, 881	96, 109	4. 25	57. 6	75
Nonprofit.....	17, 940	8, 698	3. 57	48. 5	72
Proprietary.....	2, 436	894	2. 52	36. 7	52
Governmental <sup>2</sup> .....	146, 505	86, 517	4. 36	59. 1	76
Federal.....	743, 479	541, 738	8. 68	72. 9	116

<sup>1</sup> Excludes residents, interns and students.

<sup>2</sup> Excludes Federal hospitals.

SOURCE: American Hospital Association. Hospitals—Administrators Guide Issue, pt. II, p. 16 (Chicago, Ill., June 1952).



Short-term general and special hospitals of more than 100 beds meet substantially higher payroll costs than the smaller hospitals of this type. The treatment of more complex cases, with the aid of the more comprehensive diagnostic and treatment services provided by larger hospitals, requires more employees per 100 patients than does the care of patients in smaller hospitals which offer fewer services. Also, a greater percentage of the larger hospitals' employees must be specially skilled and therefore paid higher salaries.

**Table 7.9.—Payroll expenses per patient day and distribution of full-time personnel, short-term general and special hospitals, by size of hospital, 1951**

Size of hospital	Payroll expenses per patient day	Full-time personnel		
		Total	Percent	Per 100 patients
All short-term general and special hospitals <sup>1</sup> -----	\$9. 65	647, 878	100. 0	171
Under 50 beds-----	7. 60	53, 509	8. 2	150
50-99 beds-----	8. 61	88, 056	13. 6	168
100-249 beds-----	9. 71	229, 154	35. 4	177
250 beds and over-----	10. 39	277, 159	42. 8	173

<sup>1</sup> Excludes Federal hospitals.

SOURCE: American Hospital Association. Hospitals—Administrators Guide Issue, pt. II, p. 16 (Chicago, Ill., June 1952).

During the period 1920-51, the dollar value of hospital and related construction per year in the United States increased from \$63 million to \$917 million. The dollar value of hospital construction "put-in-place" is at an all-time high—in 1951 it was almost six times the dollar value of construction in 1939 and a little more than four times the dollar value of construction in 1930 which was the peak year for hospital construction prior to the depression.

However in recent years most of the increase in dollar value of hospital construction is due to the decreased purchasing power of the dollar. In terms of dollars of constant purchasing power, not until 1949 did hospital construction exceed that of 1930; the depression and war period kept hospital construction at a low level for almost 20 years.

Table 7.10.—Value of hospital construction put in place, index of construction costs, value of construction at 1939 construction costs, 1920-51

Year	Value of construction <sup>1</sup> (millions of dollars)	Index of construction costs (1939=100)	Value of construction at 1939 prices (millions of dollars)	Year	Value of construction <sup>1</sup> (millions of dollars)	Index of construction costs (1939=100)	Value of construction at 1939 prices (millions of dollars)
1920-----	63	141.1	45	1936-----	91	84.7	107
1921-----	84	107.7	78	1937-----	104	98.7	105
1922-----	113	99.7	113	1938-----	132	99.2	133
1923-----	112	111.7	110	1939-----	158	100.0	158
1924-----	123	110.7	111	1940-----	87	101.9	85
1925-----	140	108.2	129	1941-----	88	108.5	81
1926-----	151	108.2	140	1942-----	64	120.2	53
1927-----	186	108.2	172	1943-----	55	125.4	44
1928-----	208	108.2	192	1944-----	84	129.9	65
1929-----	205	108.2	189	1945-----	122	135.1	90
1930-----	227	99.7	228	1946-----	170	160.6	106
1931-----	181	88.7	204	1947-----	195	214.3	91
1932-----	117	77.3	151	1948-----	349	244.0	143
1933-----	59	74.8	79	1949-----	679	244.4	278
1934-----	60	80.3	75	1950-----	812	249.4	326
1935-----	48	80.8	59	1951 <sup>2</sup> -----	917	264.7	346

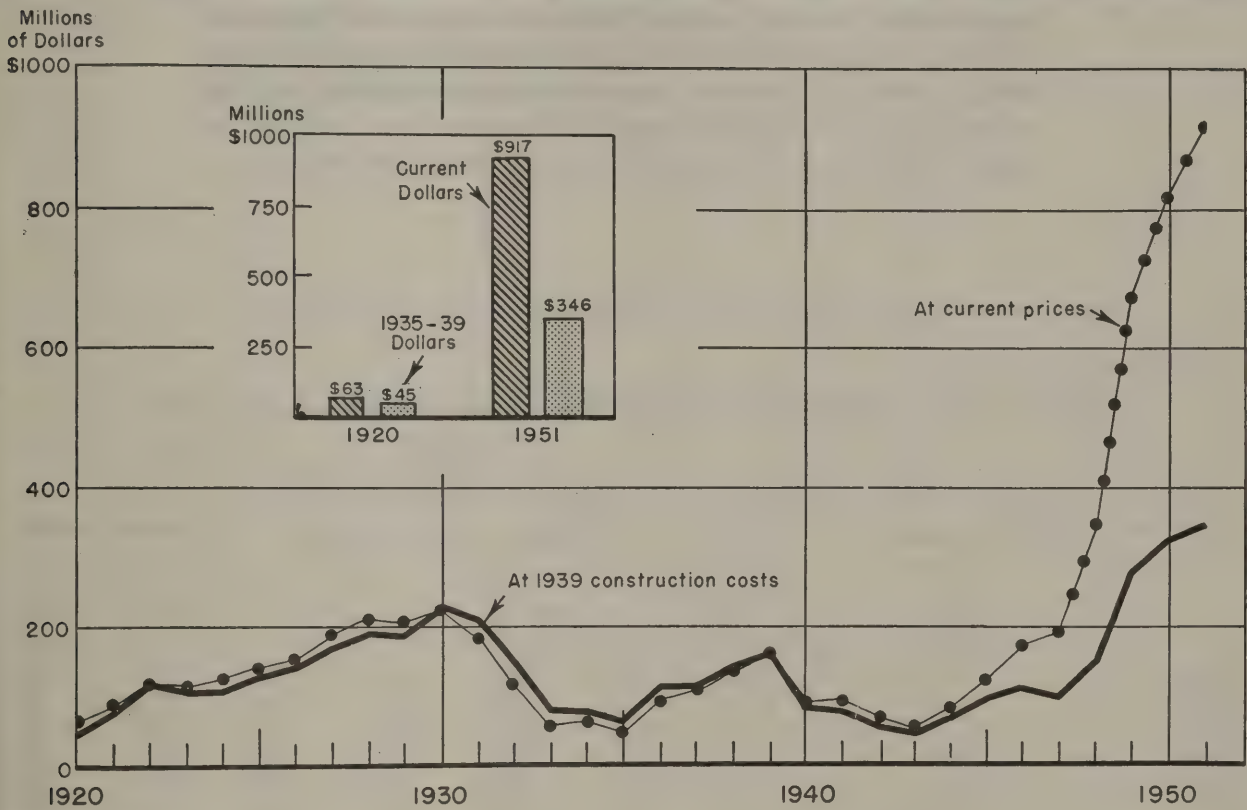
<sup>1</sup> The figures include institutional construction which constituted about 6 percent of the total in 1950 and 1951, and probably between 5 and 10 percent of the total in prior years.

<sup>2</sup> Revised.

SOURCES: Department of Labor. Expenditures for New Construction 1915-50 (Washington, D. C., August 1951).

Department of Commerce. Construction and Building Materials, Statistical Supplement, Construction Volume and Costs, 1915-50 (Washington, D. C., May 1951).

Chart 7C.—Value of hospital construction put in place, current prices and 1939 construction costs, 1920–51.



Source: See Table 7.10



In the period 1920-24, there was an equal distribution in the dollar volume of construction between public and privately owned hospitals. While the construction of both public and private hospitals declined in the thirties, the dollar volume of construction put in place on public hospitals amounted to more than three times the value of construction of private hospitals in 1935-39. In the 1940's, however, the proportion of publicly owned hospital construction decreased. In 1951, 45.7 percent of the total construction was for hospitals owned by private organizations—nonprofit or proprietary—and individuals and 54.3 percent was for institutions owned by the Federal, State, and local governments.

Table 7.11.—Value of hospital construction put in place, by type of hospital ownership, 1920-51

Period	Type of hospital ownership				
	Amount <sup>1</sup> (Millions of dollars)			Percentage distribution	
	Total	Private	Public	Private	Public
1920-24.....	495	247	248	49.9	50.1
1925-29.....	890	472	418	53.0	47.0
1930-34.....	644	233	411	36.2	63.8
1935-39.....	533	124	409	23.3	76.7
1940-44.....	378	145	233	38.4	61.6
1945-49.....	1,515	560	955	37.0	63.0
1950.....	812	342	470	42.1	57.9
1951 <sup>2</sup> .....	917	419	498	45.7	54.3

<sup>1</sup> Represents the monetary value of the work "put in place" during the specified period; includes architects' fees and the cost of fixed equipment installed under the construction contract but generally excludes the cost of movable equipment. Includes construction of "institutions" such as orphan homes, old people's homes, veterans homes, poor houses, which represent about 6 percent of

total hospital and related construction in 1950 and 1951 and probably between 5 and 10 percent of the total in prior years.

<sup>2</sup> Revised.

SOURCE: Louis S. Reed. Hospital Construction Trends, p. 4. The Modern Hospital (Chicago, Ill., March 1952).

In 1951, the value of veterans facilities put in place amounted to \$120 million. The volume of construction of Public Health Service and other Federal hospitals (exclusive of military hospitals) is relatively small, amounting in 1951 to only \$11 million.

Of the \$783 million spent on non-Federal hospital construction in 1951, \$243 million or 31 percent was spent for construction under the Hill-Burton program, the latter includes State and local funds under the Hill-Burton program, as well as Federal funds.

Table 7.12.—Total value of Federal, and non-Federal hospital construction put in place, 1935–51

Year	Total hos- pital con- struction <sup>1</sup> (millions of dollars)	Federal hospital construc- tion <sup>2</sup>		Non-Federal hospital construction		
		Veterans (millions of dollars)	Other (millions of dollars)	Total (millions of dollars)	Hill-Burton	
					Amount (millions of dollars)	Percent <sup>3</sup> of non-Federal
1935	48	3	( <sup>3</sup> )	45		
1936	91	6	( <sup>3</sup> )	85		
1937	104	8	( <sup>3</sup> )	96		
1938	132	12	( <sup>3</sup> )	120		
1939	158	11	( <sup>3</sup> )	147		
1940	87	5	( <sup>3</sup> )	82		
1941	88	4	( <sup>3</sup> )	84		
1942	64	2	( <sup>3</sup> )	62		
1943	55	5	( <sup>3</sup> )	50		
1944	84	14	( <sup>3</sup> )	70		
1945	122	22	( <sup>3</sup> )	100		
1946	170	21	( <sup>3</sup> )	149		
1947	195	30	( <sup>3</sup> )	165		
1948	349	97	( <sup>1</sup> )	251	6	0.2
1949	679	163	6	510	124	24.3
1950	812	134	9	669	232	34.7
1951	<sup>4</sup> 917	120	11	783	243	31.0

<sup>1</sup> Represents the monetary value of the volume of work "put in place" during the specified period; includes architects' fees and the cost of fixed equipment installed under the construction contract but generally excludes the cost of movable equipment.

Includes construction of "institutions" such as orphan homes, old people's homes, veterans homes, poor houses which represents about 6 percent of total hospital and related construction in 1950 and 1951 and probably between

5 and 10 percent of the total in prior years.

<sup>2</sup> Excludes construction of military hospitals.

<sup>3</sup> Not available.

<sup>4</sup> Revised; subtotals add to \$914 million since revised data for the breakdown were not available.

SOURCE: Louis S. Reed. Hospital Construction Trends, p. 4. The Modern Hospital (Chicago, Ill., March 1952).

As of September 30, 1952, a total of 1,877 projects providing 90,645 beds had been approved for construction under the Hill-Burton Hospital Construction program. Total construction costs of these projects were estimated at almost \$1,457 million of which the Federal share was more than \$517 million or 36 percent.

Of the total construction costs under the program, 82 percent is being spent for general hospital beds.



**Table 7.13.—Number and percentage distribution of approved project applications, beds provided and total construction costs, by type of facility, Hill-Burton Hospital Survey and Construction Program, September 30, 1952**

Type of facility	Projects		Beds provided		Construction costs			
					Total		Federal share	
	Num- ber	Percent	Num- ber	Percent	Amount	Percent	Amount	Percent of total
Total-----	1, 877	100. 0	90, 645	100. 0	\$1, 456, 869, 933	100. 0	\$517, 378, 835	35. 5
General-----	1, 334	71. 1	69, 506	76. 7	1, 188, 773, 907	81. 6	424, 769, 444	35. 7
Tuberculosis-----	56	3. 0	5, 358	5. 9	59, 596, 762	4. 1	20, 611, 133	34. 6
Mental-----	86	4. 6	10, 312	11. 4	73, 436, 877	5. 0	29, 123, 843	39. 7
Chronic-----	27	1. 4	2, 743	3. 0	42, 755, 016	2. 9	9, 804, 115	22. 9
Public health centers-----	207	11. 0	-----	-----	26, 949, 513	1. 9	10, 764, 226	39. 9
Auxiliary health centers-----	90	4. 8	-----	-----	2, 653, 193	. 2	1, 344, 547	50. 7
General with public health centers-----	61	3. 2	2, 726	3. 0	46, 726, 888	3. 2	17, 684, 291	37. 8
State health laboratories-----	16	0. 9	-----	-----	15, 977, 777	1. 1	3, 277, 236	20. 5

SOURCE: Public Health Service, Division of Hospital Facilities. Hospital Construction Under the Hill-Burton Program. Analysis of Projects Approved for Federal Aid, p. 8 (Washington, D. C., Sept. 30, 1952).

At the end of June 1952, the Nation had over 1,000,000 acceptable non-Federal hospital beds in addition to about 220,000 beds in Federal hospitals. A summary of the State hospital plans developed under the Hill-Burton Hospital Survey and Construction program revealed that nearly 850,000 more beds are needed to provide adequate hospital care to the population.

Beds needed specifically for the care of the mentally and chronically ill account for more than two-thirds of the country's total bed need. Even though we have 84,000 acceptable tuberculosis beds, case-finding programs and other factors have increased the need for such beds.

Table 7.14.—Number of existing acceptable beds and additional beds needed by type of bed and by region, United States and Territories, June 1952

Region	All categories		General		Mental		Tuberculosis		Chronic	
	Existing acceptable <sup>1</sup>	Additional needed <sup>2</sup>	Existing acceptable <sup>1</sup>	Additional needed <sup>2</sup>	Existing acceptable <sup>1</sup>	Additional needed <sup>2</sup>	Existing acceptable <sup>1</sup>	Additional needed <sup>2</sup>	Existing acceptable <sup>1</sup>	Additional needed <sup>2</sup>
United States and Territories.....	1,033,831	875, 167	479, 939	232, 896	422, 893	341, 456	88, 251	38, 343	42, 748	262, 472
United States.....	1,018,121	846, 280	473, 271	226, 611	419, 128	331, 052	83, 524	31, 262	42, 198	257, 355
New England.....	81, 654	35, 173	30, 402	14, 314	37, 260	9, 044	6, 543	742	7, 449	11, 073
Central Atlantic.....	282, 509	158, 399	116, 439	46, 000	130, 623	48, 129	21, 882	7, 052	13, 565	57, 218
Southeast.....	175, 560	218, 377	86, 556	59, 775	66, 438	90, 874	16, 469	10, 662	6, 097	57, 066
Southwest.....	67, 773	75, 529	37, 899	16, 165	21, 601	34, 559	6, 626	4, 028	1, 647	20, 777
East North Central.....	180, 849	189, 789	89, 182	49, 349	69, 110	82, 667	15, 412	4, 207	7, 145	53, 566
West North Central.....	100, 848	72, 335	53, 164	14, 829	39, 075	31, 120	5, 584	1, 333	3, 025	25, 053
Rocky Mountain.....	26, 433	18, 239	14, 673	3, 588	9, 437	7, 828	2, 090	150	233	6, 673
Far West.....	102, 495	78, 439	44, 956	22, 591	45, 584	26, 831	8, 918	3, 088	3, 037	25, 929
Territories.....	15, 710	28, 887	6, 668	6, 285	3, 765	10, 404	4, 727	7, 081	550	5, 117

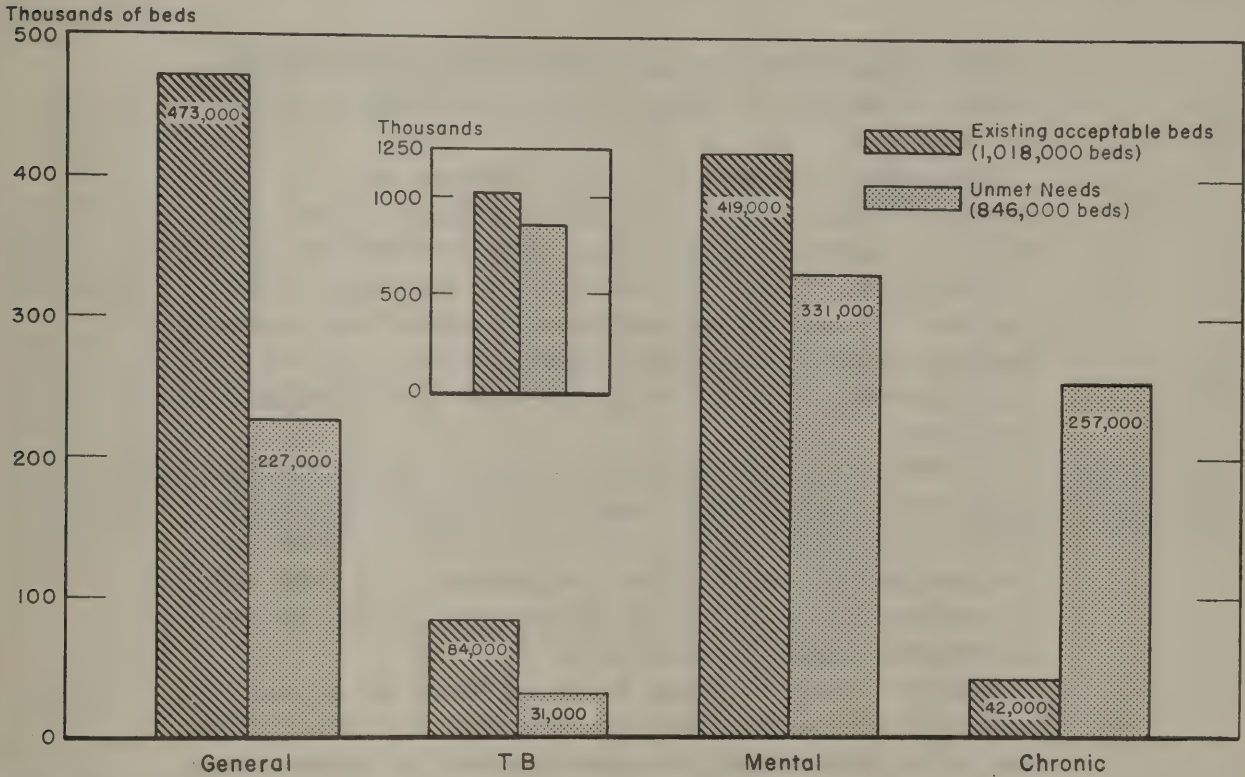
<sup>1</sup> Excludes beds classified as "nonacceptable" by the States on the basis of fire and health hazards, obsolete construction, etc.

<sup>2</sup> Needs estimated by each State on the basis of the maximum ratios permissible for Federal aid, as prescribed by Title VI, Public Health Service Act: general, 4.5 to 5.5 beds per 1,000 population, depending on the population density of the States; mental, 5 beds per 1,000 population;

tuberculosis, 2.5 times average annual deaths from tuberculosis in State over 5-year period, 1940-44 (averages for other 5-year periods may be used providing rate does not exceed that for 1940-44 period); and chronic disease, 2 beds per 1,000 population.

SOURCE: Based on summary of data in State Hospital Plans approved under the Hill-Burton Act prepared by the Division of Hospital Facilities, Public Health Service.

Chart 7D.—Hospital beds in the United States: Existing acceptable beds and additional beds needed, June 30, 1952.



Source: Public Health Service



## 8. ECONOMIC STATUS AND HEALTH

The median money income, before taxes, of the "spending units" of the United States rose from \$2,300 in 1946 to \$3,200 in 1951.

A spending unit may be a single person or a group of persons, living in the same dwelling, related by blood, marriage, or adoption, and pooling their incomes for major expense items. A dwelling contains only one primary spending unit. It may include additional spending units such as boarders or servants or adult children or other relatives who do not necessarily pool their income with that of the household head.

In 1946, about two-thirds (65 percent) of the spending units in the United States had money incomes of less than \$3,000. In 1951 the proportion below this income level had dropped to less than half (46 percent). In 1946, only 1 spending unit in 10 had \$5,000 or more; in 1951 the proportion was 2 spending units in 10.

Money income, it should be noted, takes no account of income in kind such as food, housing, and other items which are either produced by the spending unit for consumption or furnished by others without payment in money.

Table 8.1.—Percentage distribution of spending units, by income group, 1946-51

Money income before taxes	1946	1947	1948	1949	1950	1951
All spending units <sup>1</sup> -----	100	100	100	100	100	100
Under \$1,000-----	17	14	12	14	13	13
\$1,000-\$1,999-----	23	22	18	19	17	15
\$2,000-\$2,999-----	25	23	23	21	19	18
\$3,000-\$3,999-----	17	17	20	19	19	18
\$4,000-\$4,999-----	8	10	12	11	12	15
\$5,000-\$7,499-----	6	9	10	11	14	14
\$7,500 and over-----	4	5	5	5	6	7
Median income (current dollars)-----	\$2, 300	2, 530	2, 840	2, 700	3, 000	3, 200
Median income (1939 dollars) <sup>2</sup> -----	\$1, 498	1, 502	1, 601	1, 542	1, 675	1, 668

<sup>1</sup> Income data for each year are based on interviews during January, February, and early March of the following year.

<sup>2</sup> Department of Commerce price deflator for personal consumption expenditures.

SOURCE: Federal Reserve System. 1952 Survey of Consumer Finances. Pt. I. Consumer Expectations as to Economic Trends and Consumer Investment Preferences, p. 3, table 2. Federal Reserve Bulletin (Washington, D. C., July 1952).

During the United States Census of the Population (the Seventeenth Decennial Census) data on 1949 income were collected from 20 percent of all single persons and families in the United States. These decennial census data differ from those collected annually by the Bureau of the Census in its monthly population survey. The monthly population survey in April 1951, which obtained incomes of families and persons in 1950, was based on a sample of 25,000 households, or less than one-tenth of 1 percent of all households.

The 1949 median money income of families in the United States was \$3,073 and just over \$1,700 in terms of 1939 dollars. For urban families the median was \$3,431; for rural nonfarm families it was \$2,560 and for rural farm families it was only \$1,729. A family is defined as two or more persons related by blood, marriage or adoption and living together. A family differs from a spending unit (as used in table 8.1) in that it excludes single persons who are not living with a relative and in that all relatives in the same dwelling are considered members of one family whether or not income is pooled for major expenses. Money income excludes income in kind as in the preceding table.

In 1949, the proportion of families with less than \$3,000 a year in money income was 7 in 10 for rural farm groups, 6 in 10 for rural nonfarm groups, and about 4 in 10 for urban families.

Of the 36 million families in the United States in 1950 about one-fifth lived in rural nonfarm areas and about one-seventh were rural farm families.



Table 8.2.—Percentage distribution of families, by total money income in 1949, urban and rural

Income	Total	Urban	Rural nonfarm	Rural farm
Number of families-----	36, 439, 955	24, 078, 530	7, 183, 025	5, 178, 400
	Percent			
Number reporting-----	100. 0	100. 0	100. 0	100. 0
Under \$1,000-----	14. 7	10. 0	18. 2	31. 6
\$1,000-\$1,999-----	14. 6	11. 2	18. 7	24. 5
\$2,000-\$2,999-----	19. 1	18. 5	22. 3	17. 8
\$3,000-\$3,999-----	19. 4	21. 5	18. 5	10. 9
\$4,000-\$4,999-----	12. 1	14. 2	9. 8	5. 8
\$5,000-\$5,999-----	7. 8	9. 4	5. 3	3. 3
\$6,000-\$6,999-----	4. 3	5. 3	2. 7	1. 9
\$7,000-\$9,999-----	4. 9	6. 1	2. 7	2. 4
\$10,000 and over-----	3. 1	3. 9	1. 7	1. 8
Median income (current dollars)-----	\$3, 073	3, 431	2, 560	1, 729
Median income (1939 dollars) <sup>1</sup> -----	\$1, 716	1, 916	1, 429	965

<sup>1</sup> Adjusted by Department of Commerce price deflator for consumption expenditures.

A sample survey of 25,000 households, made in 1951, disclosed that the median money income in 1950 was far higher for white than for nonwhite families.

White families living on farm wages and salaries in 1950 had a median money income of \$1,767, while nonwhite families had a median income of less than one-half that amount.

The median money income of white families from self-employment in farming was three times that of nonwhite families.

Wages and salaries from nonfarm work yielded a median money income of \$3,720 for white families, but only \$2,272 for nonwhite families.

**Table 8.3. Median money income of white and nonwhite families and unrelated individuals, farm and nonfarm, by major source of earnings, 1950**

Major source of earnings	Median Income				Percent by which white exceeds nonwhite	
	Families		Unrelated individuals		Families	Unrelated individuals
	White	Nonwhite	White	Nonwhite		
Total money income—all sources.....	\$3, 445	\$1, 869	\$1, 115	\$817	84. 3	36. 5
Nonfarm wages and salaries.....	3, 720	2, 272	2, 069	1, 219	63. 7	69. 7
Nonfarm self-employment.....	3, 899	( <sup>1</sup> )	1, 348	( <sup>1</sup> )	-----	-----
Farm wages and salaries.....	1, 767	856	719	( <sup>1</sup> )	106. 4	-----
Farm self-employment.....	2, 213	726	( <sup>1</sup> )	( <sup>1</sup> )	204. 8	-----

<sup>1</sup> Median not shown where there were fewer than 100 cases in the sample reporting on income.

SOURCE: Bureau of the Census. Income of Families and Persons in the United States, 1950. Series P-60, No. 9, p. 24 (Washington, D. C.).

The median money income of families in which the family head was aged 65 or over was \$1,903 in 1950 as compared with a median of \$3,319 for all families in the United States according to a Bureau of the Census sample survey of 25,000 households.

Among families with a family head aged 65 or more, two-thirds had money incomes of less than \$3,000 and about one-seventh had \$5,000 or more. These proportions may be contrasted with the fact that only two-fifths of all families had less than \$3,000 and one-fourth \$5,000 or more.

Among persons aged 65 and over, living alone or with others who were not related, the median income was \$646; three-fourths of them had less than \$1,000 a year in money income and 1 in 3 persons had \$5,000 or more.

Table 8.4.—Percentage distribution of all families and unrelated individuals and of families and individuals with age of head 65 years and over, by income, 1950

Total money income	Families		Unrelated individuals	
	All ages	Head of family 65 years and over	All ages	Age 65 and over
Percent.....	100	100	100	100
Under \$1,000.....	11.5	30.4	49.1	76.5
\$1,000 to \$1,999.....	13.2	21.2	18.8	12.9
\$2,000 to \$2,999.....	17.8	15.8	16.4	5.3
\$3,000 to \$3,999.....	20.7	11.5	10.2	2.1
\$4,000 to \$4,999.....	13.6	6.4	3.1	.6
\$5,000 to \$5,999.....	9.0	4.4	1.2	.7
\$6,000 to \$6,999.....	5.2	2.6	.4	.3
\$7,000 to \$9,999.....	5.8	4.5	.6	1.1
\$10,000 and over.....	3.3	3.2	.4	.5
Median income.....	\$3,319	\$1,903	\$1,045	\$646

SOURCE: Bureau of the Census. Current Population Reports, Series P-60, No. 9, p. 25, table 6 (Washington, D. C., March 25, 1952).



Average per capita money income in the United States has increased 133 percent, from \$680 in 1929 to \$1,584 in 1951.

In 1929, some eight States (Alabama, Arkansas, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee), all in the South, had per capita incomes that were only about half the national average. In 1951, four of these same States (Georgia, Kentucky, North Carolina, and Tennessee) had per capita incomes of two-thirds or more of the national average. In that year Mississippi was the only one of the 48 States in which per capita income was less than half that for the United States as a whole.

Among the 16 States where per capita income in 1929 was above the national average in 1929, all but 5 (Maryland, Nevada, Ohio, Washington State, and Wyoming) exceeded the national average by a smaller proportion in 1951 than in 1929.

In 1929, in seven States and the District of Columbia the per capita income was one-third or more above the national average. There was no such excess for any State or the District in 1951.

Table 8.5.—Per capita incomes, by State, selected years, 1929–51

State	Per capita income					Percent of United States average per capita income					Percent change			
	1929	1940	1944	1950	1951	1929	1940	1944	1950	1951	1929–1940	1940–1950	1944–1950	1950–1951
United States---	\$680	\$575	\$1, 160	\$1, 439	\$1, 584	100	100	100	100	100	–15	+150	+24	+10
New England:														
Connecticut-----	918	827	1, 513	1, 776	1, 999	135	144	130	123	126	–10	+115	+17	+13
Maine-----	566	499	1, 040	1, 174	1, 298	83	87	90	82	82	–12	+135	+13	+11
Massachusetts-----	897	764	1, 296	1, 604	1, 738	132	133	112	111	110	–15	+110	+24	+8
New Hampshire-----	652	561	1, 055	1, 293	1, 444	96	98	91	90	91	–14	+130	+23	+12
Rhode Island-----	851	716	1, 320	1, 564	1, 691	125	125	114	109	107	–16	+118	+18	+8
Vermont-----	601	521	959	1, 191	1, 322	88	91	83	83	83	–13	+129	+24	+11
Central Atlantic:														
Delaware-----	919	892	1, 424	1, 897	2, 070	135	155	123	132	131	–3	+113	+33	+9
District of Columbia--	1, 191	1, 087	1, 328	1, 995	2, 095	175	189	114	136	132	–9	+80	+47	+7
Maryland-----	703	708	1, 284	1, 555	1, 714	103	123	111	108	108	+1	+120	+21	+10
New Jersey-----	947	803	1, 444	1, 710	1, 885	139	140	124	119	119	–15	+113	+18	+10
New York-----	1, 125	863	1, 535	1, 875	1, 996	165	150	132	130	126	–23	+117	+22	+6
Pennsylvania-----	767	626	1, 213	1, 532	1, 663	113	109	105	106	105	–18	+145	+26	+9
West Virginia-----	464	398	807	1, 051	1, 174	68	69	70	73	74	–14	+164	+30	+12

Table 8.5.—Per capita incomes, by State, selected years, 1929–51—Continued

State	Per capita income					Percent of United States average per capita income					Percent change			
	1929	1940	1944	1950	1951	1929	1940	1944	1950	1951	1929–1940	1940–1950	1944–1950	1950–1951
<b>Southeast:</b>														
Alabama.....	\$305	\$269	\$702	\$840	\$950	45	47	61	58	60	–12	+212	+20	+13
Arkansas.....	305	254	655	823	926	45	44	56	57	58	–17	+224	+26	+13
Florida.....	484	468	1,013	1,204	1,284	71	81	87	84	81	–3	+157	+19	+7
Georgia.....	329	316	761	958	1,103	48	55	66	67	70	–4	+203	+26	+15
Kentucky.....	371	309	704	917	1,066	55	54	61	64	67	–17	+197	+30	+16
Louisiana.....	415	358	827	1,042	1,135	61	62	71	72	72	–14	+191	+26	+9
Mississippi.....	273	204	583	702	771	40	35	50	49	49	–25	+244	+20	+10
North Carolina.....	309	316	713	956	1,052	45	55	61	66	66	+2	+203	+34	+10
South Carolina.....	252	287	673	838	1,003	37	50	58	58	63	+14	+192	+25	+20
Tennessee.....	349	316	808	960	1,064	51	55	70	67	67	–9	+204	+19	+11
Virginia.....	422	446	924	1,146	1,295	62	78	80	80	82	+6	+157	+24	+13
<b>Southwest:</b>														
Arizona.....	573	466	959	1,240	1,432	84	81	83	86	90	–19	+166	+29	+15
New Mexico.....	383	356	799	1,133	1,301	56	62	69	79	82	–7	+218	+42	+15
Oklahoma.....	455	359	940	1,071	1,182	67	62	81	74	75	–21	+198	+14	+10
Texas.....	465	413	972	1,276	1,412	68	72	84	89	89	–11	+209	+31	+11
<b>East North Central:</b>														
Illinois.....	932	727	1,337	1,756	1,928	137	126	115	122	122	–22	+142	+31	+10
Indiana.....	583	542	1,156	1,455	1,649	86	94	100	101	104	–7	+168	+26	+13
Michigan.....	745	648	1,331	1,583	1,734	110	113	115	110	109	–13	+144	+19	+10
Ohio.....	748	642	1,311	1,584	1,799	110	112	113	110	114	–14	+147	+21	+14
Wisconsin.....	634	516	1,124	1,434	1,614	93	90	97	100	102	–19	+178	+28	+13
<b>West North Central:</b>														
Iowa.....	546	488	1,036	1,409	1,531	80	85	89	98	97	–11	+189	+36	+9
Kansas.....	532	423	1,164	1,346	1,460	78	74	100	94	92	–20	+218	+16	+8
Minnesota.....	566	511	975	1,341	1,474	83	89	84	93	93	–10	+162	+38	+10
Missouri.....	612	506	1,039	1,397	1,519	90	88	90	97	96	–17	+176	+34	+9
Nebraska.....	557	434	1,122	1,478	1,510	82	75	97	103	95	–22	+241	+32	+2
North Dakota.....	389	372	1,075	1,276	1,403	57	65	93	89	89	–4	+243	+19	+10
South Dakota.....	417	379	1,048	1,281	1,529	61	66	90	89	97	–9	+238	+22	+19
<b>Rocky Mountain:</b>														
Colorado.....	616	520	1,023	1,396	1,568	91	90	88	97	99	–16	+168	+36	+12
Idaho.....	518	443	1,029	1,255	1,356	76	77	89	87	86	–14	+183	+22	+8
Montana.....	602	577	1,208	1,591	1,742	89	100	104	111	110	–4	+176	+32	+9
Utah.....	537	478	1,061	1,266	1,424	79	83	91	88	90	–11	+165	+19	+12
Wyoming.....	687	604	1,092	1,519	1,722	101	105	94	106	109	–12	+151	+39	+13
<b>Far West:</b>														
California.....	946	803	1,535	1,758	1,933	139	140	132	122	122	–15	+119	+15	+10
Nevada.....	817	821	1,383	1,863	2,029	120	143	119	129	128	( <sup>1</sup> )	+127	+35	+9
Oregon.....	640	575	1,302	1,515	1,652	94	100	112	105	104	–10	+163	+16	+9
Washington.....	713	632	1,495	1,622	1,755	105	110	129	113	111	–11	+157	+8	+8

<sup>1</sup> Less than one-half of 1 percent increase.

SOURCE: Robert E. Graham, Jr., State Income Payments in 1951. Survey of Current Business, vol. 32, No. 8, pp. 11 and 17 (Washington, D. C., August 1952).

Inflation during recent years vitiates much of the significance of the increases in dollar income. If one converts the actual dollar income each year to the purchasing power of the 1939 dollar, the average per capita income increased only 54 percent from 1929 to 1951, rather than the 133 percent which reflects dollars without regard to purchasing power. On the same basis (1939 dollars) national income has increased 95 percent, rather than 218 percent, in that period.

Table 8.6.—Trends in per capita income and national income, current dollars and 1939 dollars

Year	Per capita income		National income	
	Current dollars	1939 dollars <sup>1</sup>	Current dollars	1939 dollars <sup>2</sup>
1929	\$680	\$552	\$87,355	\$72,254
1930	596	496	75,003	64,491
1931	500	457	58,873	56,070
1932	380	387	41,690	44,257
1933	368	396	39,584	43,643
1934	420	436	48,613	50,904
1935	460	466	56,789	58,126
1936	531	533	64,719	65,838
1937	561	543	73,627	71,691
1938	509	502	67,375	66,774
1939	539	539	72,532	72,532
1940	575	570	81,347	80,145
1941	693	655	103,834	94,826
1942	876	747	137,119	110,047
1943	1,059	851	169,686	127,201
1944	1,160	917	183,838	134,977
1945	1,191	920	182,691	130,215
1946	1,211	883	180,286	118,143
1947	1,293	805	198,688	117,846
1948	1,383	800	223,469	123,737
1949	1,320	771	216,259	120,546
1950	1,436	831	239,170	130,267
1951	1,584	848	277,554	141,034
Percent increase 1929-1951	133	54	218	95

<sup>1</sup> Current per capita income adjusted by the Bureau of Labor Statistics Cost of Living Index, for moderate income families in large cities, shifted to a 1939 base.

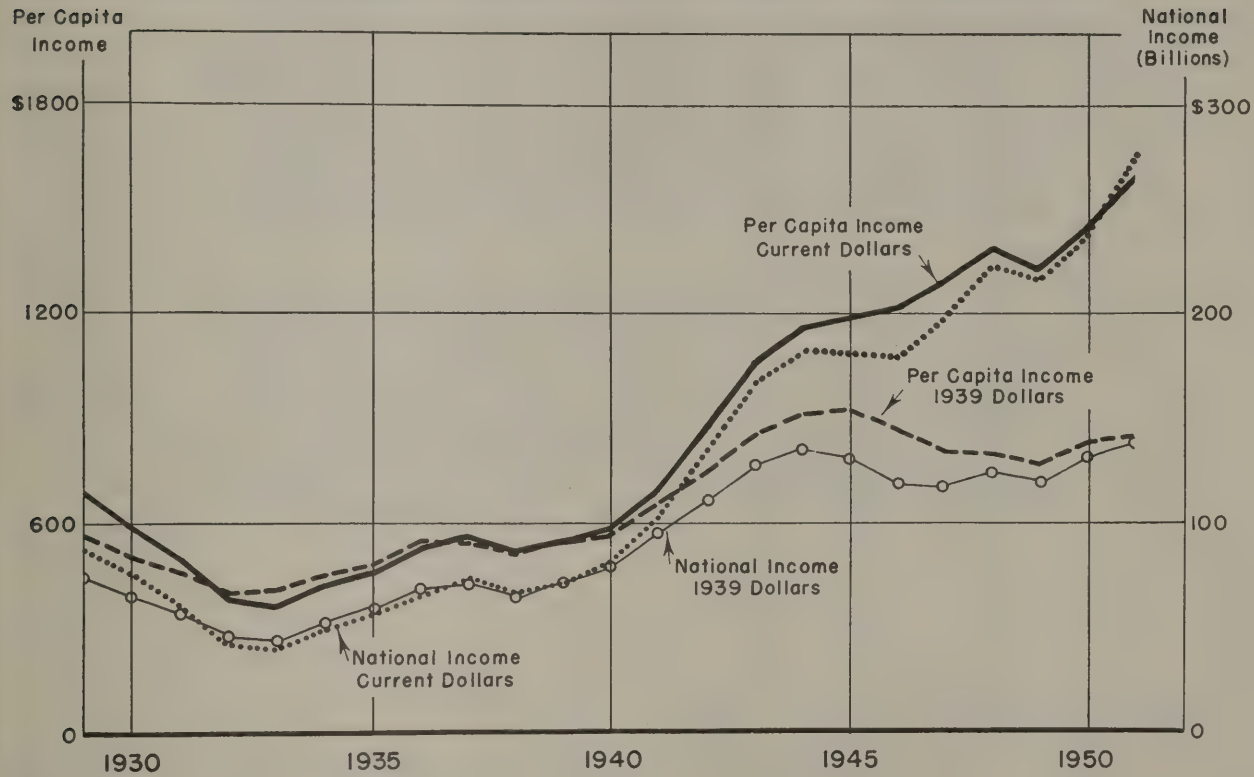
<sup>2</sup> Current national income adjusted by the Department of Commerce price deflator for gross national product.

SOURCES: Robert E. Graham, Jr., State Income Payments in 1951. Survey of Current Business, vol. 32, No. 8, p. 17 (Washington, D. C., August 1952).

Department of Commerce, Survey of Current Business, vol. 32, No. 7, pp. 13-28 (Washington, D. C., July 1952).



Chart 8A.—Per capita and national income, current dollars and 1939 dollars, 1929-51.



Source: Department of Commerce

For each income group, the percentage of spending units without any liquid assets, such as bank deposits or postal savings, has increased during the period 1947 to 1952.

In 1952, liquid assets of \$2,000 or more were held by 12 percent of the spending units with less than \$1,000 annual money income, by 12 percent of those with incomes of \$1,000-\$2,999, by 19 percent of those with incomes of \$3,000-\$4,999 and by 40 percent of those with incomes of \$5,000 and over.

Thus, in 1952 more than four-fifths of all those with incomes under \$5,000 had less than \$2,000 in liquid assets. Three-fifths of those with incomes of \$5,000 or more held less than \$2,000 in liquid assets. However, because of the very large holdings of some spending units in the group with incomes of \$5,000 or more, the 10 percent of the families with the highest incomes held 40 percent of all liquid assets in 1952.

Table 8.7.—Size of liquid asset holdings within various income groups, 1947-52

Income group <sup>1</sup> and year	Percentage distribution of spending units by amount of liquid assets held <sup>2</sup>				
	No assets	\$1-\$499	\$500-\$1,999	\$2,000-\$4,999	\$5,000 and over
Under \$1,000:					
1947.....	51	27	15	5	2
1948.....	56	21	14	6	3
1949.....	56	24	12	5	3
1950.....	56	23	11	6	4
1951.....	53	24	13	6	4
1952.....	60	17	11	6	6
\$1,000-\$2,999:					
1947.....	27	31	30	9	3
1948.....	34	32	23	7	4
1949.....	38	29	21	8	4
1950.....	39	29	18	9	5
1952.....	39	31	19	7	4
1952.....	44	28	16	8	4
\$3,000-\$4,999:					
1947.....	10	24	34	24	8
1948.....	14	31	30	18	7
1949.....	19	35	25	14	7
1950.....	21	32	25	15	7
1951.....	19	37	27	12	5
1952.....	21	38	22	14	5
\$5,000 and over:					
1947.....		10	22	27	41
1948.....	2	13	24	27	34
1949.....	5	17	23	25	30
1950.....	4	22	25	23	26
1951.....	4	22	29	22	23
1952.....	8	26	26	20	20

<sup>1</sup> Income groups are based on annual money income before taxes of year previous to interview.

<sup>2</sup> Includes all types of U. S. Government bonds, checking accounts, savings accounts in banks, postal savings, and shares in savings and loan associations and credit unions; excludes currency. Liquid asset data are based on interviews in January, February and early March of the years indicated.

SOURCES: Federal Reserve System. 1950 Survey of Consumer Finances. Federal Reserve Bulletin (Washington, D. C., December 1950).

New Federal Reserve System. 1952 Survey of Consumer Finances. Federal Reserve Bulletin (Washington, D. C., September 1952).



From one-fourth to one-third of cases admitted to the public assistance rolls in 1949 were approved for public aid directly because of the illness or disability of the recipient or of the person on whom the recipient relied for support during the 6 months preceding admission to public assistance.

Illness or disability may also have been the indirect cause of dependency in other instances where the stated direct cause was loss of employment, decreased earnings, death of the wage earner, depletion of savings, or loss or decrease of contributions from relatives outside the recipient's home.

This record of admission to assistance does not reflect the cause of dependency for the millions of persons receiving public aid who were approved for assistance in earlier years.

**Table 8.8.—Percentage distribution of cases opened for public assistance, by type of assistance and reason for opening, 1949**

Reason for opening	Old-age assistance	Aid to dependent children	Aid to the blind	General assistance <sup>1</sup>
Number of States reporting.....	39	37	35	13
Number of openings.....	361, 034	181, 295	9, 415	134, 339
Total.....	100. 0	100. 0	100. 0	100. 0
Material change in economic circumstances during last 6 months.....	75. 7	88. 1	65. 8	93. 8
Discontinuance of unemployment benefits.....	1. 6	1. 5	1. 5	4. 5
Loss of employment or decreased earnings.....	42. 7	42. 7	43. 0	70. 2
Illness or disablement.....	34. 2	29. 0	32. 7	25. 9
Lay-off, discharge, or other reason.....	8. 6	13. 8	10. 3	44. 4
Wage earner's death or absence.....	1. 3	28. 7	2. 2	4. 5
Discontinuance of service-connected income.....	. 5	. 9	. 5	. 7
Depletion of savings or other assets.....	18. 9	3. 4	9. 8	5. 9
Loss or decrease of contributions from relatives outside the home.....	5. 4	5. 6	4. 0	2. 8
Other change in economic circumstances.....	5. 4	5. 3	4. 7	5. 1
No material change in economic circumstances during last 6 months.....	24. 3	11. 9	34. 2	6. 2
Change in law or agency policy.....	1. 2	. 1	. 9	( <sup>2</sup> )
Attainment of technical eligibility.....	16. 4	4. 7	19. 0	. 3
Other.....	6. 7	7. 0	14. 3	5. 8

<sup>1</sup> Excludes cases opened to supplement payments made under one of the special types of public assistance.<sup>2</sup> Less than 0.05 percent.

SOURCE: Social Security Administration. Reasons for Opening Cases for Public Assistance, 1947-49. Social Security Bulletin, vol. 13, no. 7, p. 13 (Washington, D. C., July 1950).

Studies of Michigan families indicated that the proportion of persons who had untreated symptoms of illness was greater among those with lower family income.

Among rural families more than half the individuals in the income group of under \$1,000 had one or more untreated symptoms, while the proportion was 11 percent for those in the income group of \$5,000 or over.

In the urban families, almost two-fifths of the persons in families of the lowest income level had one or more untreated symptoms, as contrasted with less than one-tenth of those in the highest income group.

The findings relative to untreated symptoms needing medical attention were validated by having a random sample of persons who had been interviewed undergo clinical examination. In 80 percent of these examinations the clinical findings confirmed the data furnished in the interview.

Table 8.9.—Level of health and health care of individuals in Michigan families, by residence and by gross income of family, 1948

Residence, symptoms, and treatment	Gross income <sup>1</sup> of family					
	Under \$1,000	\$1,000–\$1,999	\$2,000–\$2,999	\$3,000–\$3,999	\$4,000–\$4,999	\$5,000 and over
<b>RURAL</b>						
Number of individuals.....	159	309	528	357	166	94
Percent.....	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
No positive symptoms.....	32. 7	50. 4	59. 5	58. 0	66. 3	65. 9
All positive symptoms treated:						
By M. D.....	15. 7	14. 4	14. 8	17. 1	19. 9	17. 0
By non-M. D.....		2. 0	. 6	. 6	1. 2	6. 4
One or more untreated symptoms.....	51. 6	33. 2	25. 1	24. 3	12. 6	10. 7
<b>URBAN <sup>2</sup></b>						
Number of individuals.....	92	241	418	323	167	140
Percent.....	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
No positive symptoms.....	45. 7	62. 7	51. 7	71. 5	61. 6	70. 1
All positive symptoms treated:						
By M. D.....	16. 7	15. 4	26. 1	14. 2	24. 0	20. 7
By non-M. D.....		. 4	. 2		1. 8	. 7
One or more untreated symptoms.....	38. 0	21. 5	22. 0	14. 3	12. 6	8. 5

<sup>1</sup> Individuals for whom income was not reported are excluded.

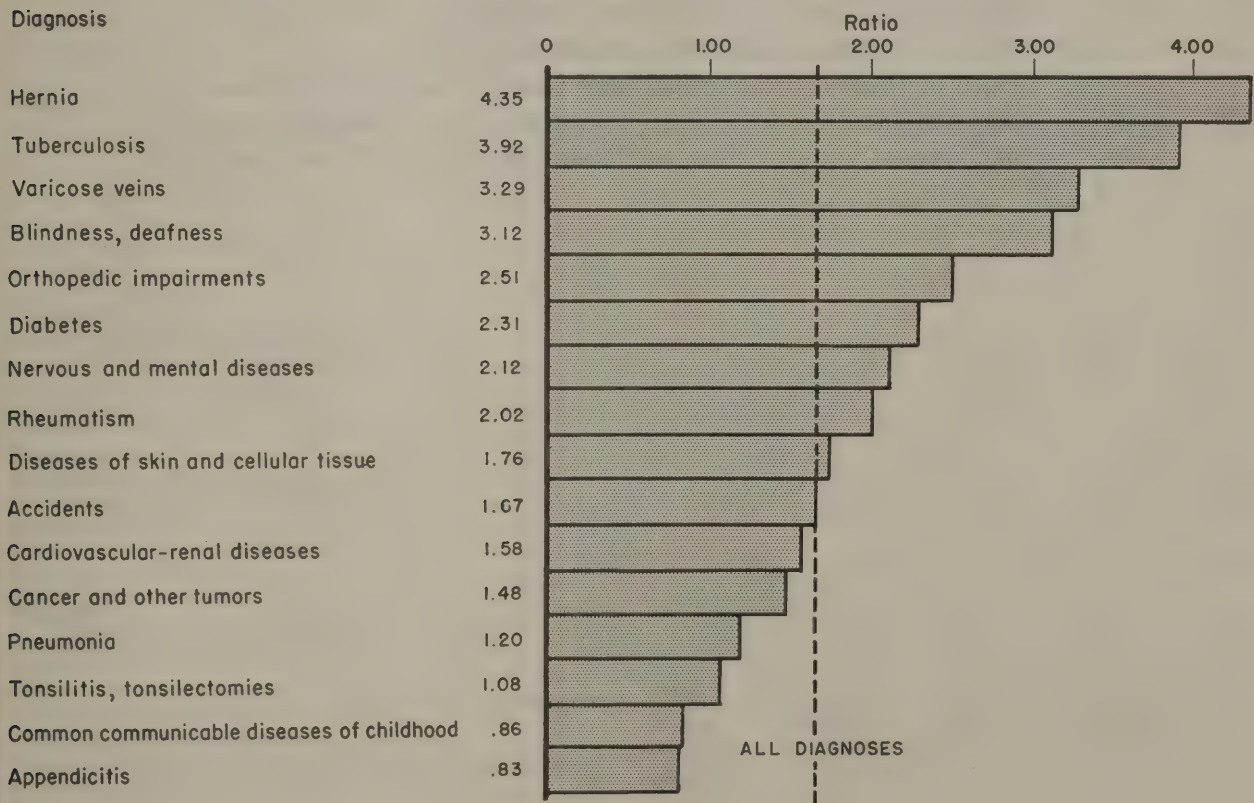
<sup>2</sup> "Urban" is exclusive of the Detroit area. A total of 153 households and 548 individuals residing in fringe areas are excluded from this table although tabulated in the survey.

SOURCE: Charles R. Hoffer, Duane L. Gibson, Charles P. Loomis, Paul A. Miller, Edgar A. Schuler and John F. Thaden. Health Needs and Health Care in Michigan, Special Bulletin 365, pp. 82–83. Michigan State College (East Lansing, Mich., June 1950).



According to a survey in 1935-36 among people in 83 cities who were not receiving relief, illness caused much more disability in families with incomes of \$1,000 or less than in those with \$3,000 or more. For every 100 days of disability from all causes among those with incomes of \$3,000 or more there were 167 days of disability among those with incomes below \$1,000. For every day of disability caused by hernia or tuberculosis in the high income group there were about 4 days of disability from the same causes in the lowest income group.

Chart 8B.—Ratio of annual per capita days of disability in the lowest-income group to that in the highest-income group, 1935-36.



Source: National Health Survey

According to a survey in New York City in 1935, among persons not on relief but with annual income of less than \$1,000 there were 50 chronic illnesses (symptoms lasting 3 months or longer) per 1,000 persons, as compared with 26 per 1,000 among persons with family income of \$3,000 or more.

In the lowest income group an average of 8.7 days of disability per person was reported for these chronic conditions in a 12-month period; in the highest income group there was a rate of 3.4 days of disability from chronic illness.

Both of these income groups had about 95 acute conditions (symptoms lasting less than 3 months), per 1,000 persons which caused about 2 days of disability per person per year.

**Table 8.10.—Frequency and disability rates of illness, classified as acute or chronic on the basis of the duration of symptoms, according to relief status and annual family income, by sex, in the white surveyed population of New York City, 1935-36**

Duration of symptoms and sex	All incomes <sup>1</sup>	Relief	Nonrelief—annual family income			
			Under \$1,000	\$1,000 to \$1,999	\$2,000 to \$2,999	\$3,000 and over
	Frequency rate (disabling illnesses <sup>2</sup> per 1,000 persons) <sup>3</sup>					
<b>BOTH SEXES</b>						
Total .....	135. 3	201. 1	145. 1	125. 2	117. 1	120. 7
Symptoms:						
Less than 3 months (acute) .....	94. 9	122. 9	95. 2	90. 9	87. 0	94. 7
3 months or longer (chronic) .....	40. 4	78. 2	49. 8	34. 3	30. 1	25. 9
<b>MALES</b>						
Total .....	117. 1	177. 0	127. 4	104. 6	101. 2	102. 8
Symptoms:						
Less than 3 months (acute) .....	77. 4	92. 0	73. 7	72. 4	74. 1	82. 2
3 months or longer (chronic) .....	39. 7	85. 0	53. 7	32. 2	27. 1	20. 6
<b>FEMALES</b>						
Total .....	152. 5	222. 4	161. 7	144. 4	132. 1	135. 9
Symptoms:						
Less than 3 months (acute) .....	111. 5	151. 3	114. 7	107. 8	99. 0	105. 3
3 months or longer (chronic) .....	41. 0	71. 1	47. 0	36. 6	33. 1	30. 6
	Disability rate (days of disability per 1,000 persons) <sup>3</sup>					
<b>BOTH SEXES</b>						
Total .....	8, 490	17, 431	10, 719	7, 009	5, 781	5, 339
Symptoms:						
Less than 3 months (acute) .....	1, 996	2, 694	2, 043	1, 896	1, 771	1, 898
3 months or longer (chronic) .....	6, 494	14, 737	8, 675	5, 113	4, 009	3, 441
<b>MALES</b>						
Total .....	8, 809	20, 072	12, 131	6, 869	5, 243	4, 407
Symptoms:						
Less than 3 months (acute) .....	1, 649	2, 112	1, 594	1, 534	1, 509	1, 558
3 months or longer (chronic) .....	7, 160	17, 960	10, 538	5, 334	3, 733	2, 449
<b>FEMALES</b>						
Total .....	8, 187	14, 729	9, 589	7, 182	6, 309	6, 146
Symptoms:						
Less than 3 months (acute) .....	2, 326	3, 231	2, 451	2, 230	2, 015	2, 193
3 months or longer (chronic) .....	5, 861	11, 498	7, 138	4, 951	4, 294	3, 953

<sup>1</sup> Includes the experience of persons in families with unknown income.

<sup>2</sup> An illness disabling for 7 days or longer.

<sup>3</sup> Adjusted to the age distribution of the white surveyed population of New York City.

SOURCE: Dorothy F. Holland and Marion E. Altenderfer. *Sickness in a Metropolitan Community: The Results of a Health Survey of New York City*, p. 62, table 19. Public Health Service (Washington, D. C., 1946).



The National Health Survey conducted in 83 cities during 1935-36 assembled data on the incidence of illness and the relation of illness to socio-economic conditions. Disability occurred 60 percent more frequently among relief families than among families with incomes of \$1,500 or more. Disability not only occurred more frequently in the lowest income groups but each case lasted much longer. The relief group shows an excess of days of disability of about 130 percent over all groups with incomes of \$1,500 or more.

Table 8.11.—Annual frequency and average number of days of disability among urban white families, according to economic status, 1935-36

Economic status and income	Annual frequency of cases <sup>1</sup>	Average number of days of disability per person
All incomes.....	171	9.9
Relief.....	232	16.0
Nonrelief:		
Under \$1,000.....	176	11.6
\$1,000-\$1,499.....	155	7.9
\$1,500-\$1,999.....	146	6.9
\$2,000-\$2,999.....	145	6.9
\$3,000-\$4,999.....	145	6.6
\$5,000 and over.....	146	6.9

<sup>1</sup> Disability was defined to mean inability to work, attend school, care for the home or carry on other usual pursuits by reason of disease, accident or physical or mental impairment.

SOURCE: Rollo H. Britten, Selwyn D. Collins and James S. Fitzgerald. The National Health Survey, Some General Findings as to Disease, Accidents and Impairments in Urban Areas. Public Health Reports, vol. 55, No. 11, Mar. 15, 1940. Reprint No. 2143, pp. 10-11 (Washington, D. C.).

The National Health Survey, conducted among white families in 83 cities during 1935-36, found a concentration of persons reported to be unemployable by reason of chronic disability in the low-income and relief groups. There were 13 times as many persons unemployable because of chronic disability in the relief group as in the group with incomes of \$5,000 and over. The differences were most marked at ages 35-44.

**Table 8.12.—Percentage of working population reported to be “unemployable” by reason of chronic disability, classified by age and economic status, 1935-36**

Annual family income and relief status	Percentage prevented from seeking work, in specified age groups					
	Total 15-64	15-24	25-34	35-44	45-54	55-64
All incomes.....	1. 10	. 17	. 42	1. 08	1. 78	3. 99
Relief.....	2. 87	. 34	1. 36	3. 07	4. 83	9. 49
Nonrelief:						
Under \$1,000.....	1. 44	. 18	. 47	1. 47	2. 35	4. 99
\$1,000-\$1,499.....	. 66	. 11	. 22	. 64	1. 09	2. 68
\$1,500-\$1,999.....	. 46	. 10	. 19	. 39	. 73	1. 85
\$2,000-\$2,999.....	. 39	. 11	. 19	. 30	. 50	1. 58
\$3,000-\$4,999.....	. 28	. 08	. 08	. 16	. 39	1. 18
\$5,000 and over.....	. 22	. 10	. 14	. 11	. 20	. 78

SOURCE: George St. J. Perrott, Clark Tibbitts, and Rollo H. Britten. The National Health Survey, Scope and Method of the Nationwide Canvass of Sickness in Relation to its Social and Economic Setting. Public Health Service Reports, vol. 54, No. 37, pp. 1663-1687 (Washington, D. C., Sept. 15, 1939).

In 1949 special questions were added to the Bureau of the Census Current Population Survey (covering a carefully selected sample of 25,000 households) in order to obtain information on the number of disabled. The survey covered the civilian noninstitutional population 14-64 years of age.

Nearly three-fourths of all persons disabled for 7 months or more had worked before becoming disabled. The percentage of disabled men who had worked before becoming disabled (86 percent) was significantly greater than for disabled women (51 percent).

Table 8.13.—Percentage of persons disabled 7 months or more who worked before becoming disabled, by age and sex, February 1949

Age group	Percentage of those disabled <sup>1</sup> for 7 months or more <sup>2</sup> who worked before disability		
	Total	Male	Female
Total.....	72.8	86.2	50.8
14 to 19.....	18.6	27.9	4.9
20 to 24.....	25.0	27.9	19.4
25 to 34.....	65.4	74.1	51.1
35 to 44.....	75.1	86.7	60.2
45 to 54.....	83.1	96.1	63.7
55 to 64.....	80.6	97.9	47.8

<sup>1</sup> Persons who, on the day of enumeration, were unable to do their regular work or other duties because of sickness or disability, and those who had a long-term physical or mental condition that allowed them to work only occasionally or not at all.

<sup>2</sup> Length of time before the day of enumeration that the disabling condition had prevented the person from doing

his regular work or other activities or allowed him to work only occasionally or not at all.

SOURCE: Marjorie E. Moore and Barkev S. Sanders. Social Security Bulletin, Extent of Total Disability in the United States, vol. 13, No. 11, p. 14, Social Security Administration (Washington, D. C., November 1950).



The loss to the economy arising out of disability has been estimated as between \$34 and \$60 billion dollars during 1951. This can be compared with a national income of \$278 billion in 1951. About half the estimated total loss was incurred through partial disability, that is, reduced productive capacity due to illness and accidents which do not totally incapacitate. Temporary disability was responsible for less than 20 percent of the total loss and extended or total disability for roughly a third.

**Table 8.14.—Estimated monetary losses incurred through disability among persons who are, or would be, in the labor force were it not for their disability, 1951**

<b>I. Annual losses through temporary disability:<sup>1</sup></b>		
A. Average working days lost per person in the labor force <sup>2</sup>	-----	6-7.
B. Total man days lost <sup>3</sup>	-----	366-427 million.
C. Average earning loss per worker <sup>4</sup>	-----	\$78-\$98.
D. Aggregate earning loss	-----	\$4.76-\$5.98 billion.
1. Percentage due to occupational accidents and illness	-----	About 7 percent.
2. Losses incurred by nonoccupational illnesses and accidents	-----	\$4.4-\$5.6 billion.
E. Aggregate loss to the economy (including losses by workers, families, employers and the economy at large—includes occupational accidents and illnesses). <sup>4</sup>	-----	\$6.6-\$10.6 billion.
<b>II. Annual losses through extended or permanent total disability:<sup>5</sup></b>		
A. Total man days lost <sup>6</sup>	-----	550-750 million.
B. Aggregate earning loss	-----	\$7.53-\$10.27 billion.
1. Percentage due to occupational accidents and illnesses	-----	About 5 percent.
2. Losses incurred by nonoccupational illnesses and accidents	-----	\$7.2-\$9.8 billion.
C. Aggregate loss to the economy	-----	\$10.5-\$19.3 billion.
<b>III. Annual losses through partial disability:<sup>7</sup></b>		
A. Aggregate earning loss	-----	\$12.3-\$16.2 billion.
1. Percent due to occupational accidents and illnesses	-----	10 percent.
2. Losses attributable to nonoccupational illnesses and accidents	-----	\$11.1-\$14.6 billion.
B. Aggregate loss to the economy	-----	\$17.1-\$29.9 billion.
<b>IV. Annual losses from total and partial disability—1951:<sup>8</sup></b>		
A. Aggregate earning loss	-----	\$24.6-\$32.4 billion.
Losses incurred by nonoccupational illnesses and accidents	-----	\$22.7-\$30.0 billion.
B. Aggregate loss to the economy	-----	\$34.2-\$59.8 billion.

<sup>1</sup> Temporary disability includes all disabilities with a maximum continuous duration of 6 months or less and the initial 6 months of disabilities which last longer.

<sup>2</sup> Based on data from sickness surveys made by the Bureau of the Census; also Monthly Labor Review, Department of Labor, September 1948, pp. 235-239; Disability Among Gainfully Occupied Persons, Social Security Board, Bureau of Research and Statistics, Memorandum No. 61, 1945; Manual of Industrial Hygiene, by W. M. Gafafer, 1943, pp. 420-466.

<sup>3</sup> Annual Report of the Labor Force, 1951; Current Population Reports, Labor Force, Bureau of the Census, Series P-50, No. 40, May 19, 1952—61 million employed.

<sup>4</sup> Survey of Current Business, U. S. Department of Commerce, Office of Business Economics, National Income Number, July 1952.

<sup>5</sup> Disabilities lasting more than 6 months exclusive of the initial 6 months.

<sup>6</sup> Derived from Extent of Total Disability in the United States, by Marjorie E. Moore and Barkev S.

Sanders, Social Security Bulletin, November 1950, and supplementary data. Estimated that a minimum of at least 2.2 million to a maximum of 3 million persons of all ages who would normally have been in the labor force were disabled by long-term or permanent disability—includes institutional population and potential workers in all age groups.

<sup>7</sup> Partial disability is defined as reduced productive capacity induced by illness and accidents which do not totally incapacitate. There is no precise way of measuring this reduction, but under State Workmen's Compensation laws the volume of partial disabilities, as measured by monetary indemnifications exceeds the combined volume of permanent and total disability.

<sup>8</sup> To this should be added also losses resulting from premature death to assess the total monetary loss of illness and preventable deaths.

SOURCE: Barkev S. Sanders, Bureau of Old Age and Survivors Insurance, Social Security Administration, Federal Security Agency (1952).

## 9. FAMILY EXPENDITURES

Consumers' expenditures for medical care annually represent about 4 percent of their total disposable personal income. The amount spent by consumers for medical care has increased steadily from about \$2 billion in 1933 to nearly \$9 billion in 1951. During the depression years of the 1930's, less money was spent for medical care than in 1929, but it represented a larger share of consumer income than previously.

In 1951 the largest share of the consumer's medical care dollar was spent for physicians' services, about 28 cents. Hospital care accounted for about one quarter of the medical dollar with expenditures for drugs taking somewhat less than 20 cents.

Expenditures for care in private hospitals and sanatoria have increased from 13 percent of all medical care expenditures in 1929 to 24 percent in 1951.

NOTE.—Further information on family expenditures is contained in *Medical Care and Costs in Relation to Family Income*, A Statistical Source Book by Helen Hollingsworth, Margaret C. Klem, and Anna Mae Baney, Social Security Administration, Bureau of Research and Statistics, Memorandum No. 51, May 1947.

Table 9.1.—Disposable personal income and percentage distribution of consumer expenditures for medical care by item of care, selected years, 1929–51

Item	1929	1933	1937	1940	1945	1950	1951
Disposable personal income (millions)-----	\$82, 484	\$45, 165	\$71, 055	\$75, 743	\$151, 060	\$205, 504	\$224, 975
Total consumer expenditures for medical care (millions)-----	\$3, 003	\$2, 005	\$2, 705	\$3, 054	\$5, 099	\$8, 329	\$8, 918
Percent of personal disposable income-----	3. 6	4. 4	3. 8	4. 0	3. 4	4. 1	4. 0
Percentage distribution, by item of care-----	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
Physicians-----	31. 9	30. 8	31. 6	29. 9	26. 3	28. 5	28. 3
Dentists-----	16. 0	13. 8	12. 9	13. 7	12. 7	11. 5	11. 1
Osteopathic physicians-----	1. 4	1. 3	1. 3	1. 5	1. 5	1. 4	1. 4
Nurses-----	3. 8	2. 9	2. 5	1. 9	1. 6	1. 4	1. 3
Practical nurses and midwives-----	2. 9	1. 7	1. 9	1. 6	1. 6	1. 3	1. 4
Chiropractors-----	1. 6	1. 3	1. 2	1. 2	1. 1	1. 1	1. 1
Chiropodists and podiatrists-----	. 7	. 6	. 6	. 6	. 5	. 5	. 5
Miscellaneous curative and healing professions-----	. 9	. 7	. 6	. 6	. 6	. 5	. 5
Drug preparations and sundries-----	20. 1	21. 3	20. 6	21. 0	22. 9	17. 4	17. 6
Ophthalmic products and orthopedic appliances-----	4. 4	4. 6	6. 1	6. 1	6. 7	5. 7	6. 1
Private hospitals and sanitariums-----	13. 4	18. 1	16. 8	17. 2	18. 1	23. 6	24. 0
Net payments to group hospitalization and health associations <sup>1</sup> -----	—	—	. 1	. 5	. 9	1. 6	1. 4
Accident and health insurance—net payments <sup>2</sup> -----	2. 8	2. 8	3. 7	4. 1	5. 5	5. 4	5. 3
Student fees for medical care-----	. 1	. 1	. 1	. 1	( <sup>3</sup> )	. 1	( <sup>3</sup> )

<sup>1</sup> Represent premiums minus claims paid.

<sup>2</sup> In recent years as much as half of this item may relate to disability rather than medical care protection; it was a larger proportion in earlier years; it is offset by other medical expenditures not known for earlier years such as payment for care in public hospitals, income of physicians in salaried practice in prepayment organizations and by exclusion of all net payments for mutual accident and sick benefit associations, some part of which relates to medical care protection. Consumer expenditures in recent years are as follows if these adjustments are taken into account: 1950, \$8,248 million; and 1951, \$8,816 million.

<sup>3</sup> Less than 0.05 percent.

Sources: Department of Commerce. National Income: 1951 edition, pp. 194–195 (Washington, D. C., 1951). Department of Commerce. National Income and Products of the United States, 1951. Survey of Current Business, vol. 32, No. 7, p. 24 (Washington, D. C., July 1952). Social Security Bulletin, December 1952, vol. 15, No. 12. In press.



The cost of a certain "package" of medical services has risen less than the cost of all consumer goods and services during the past 15 years. Taking 1935-39 as the base period, the cost of these certain priced items of medical care and drugs has risen 55 percent as compared with an 86 percent increase in all consumer items priced. From 1950 to 1951, the consumer price index rose from 172 to 186, an 8 percent increase over the year, while the price index for medical care and drugs rose from 153 to 161, an increase of 5 percent.

The consumer price index (commonly referred to as the cost-of-living index) and its component part, the index of medical care prices, are based on estimates made by the Bureau of Labor Statistics, Department of Labor, of the changes in the cost of items most commonly purchased by moderate-income families. The Bureau of Labor Statistics prices about 200 items in 34 large cities; the same items are priced each month and each item is weighted in the index according to the spending patterns of the average family.

The index has several inherent limitations. The index reflects the purchases made and the prices paid by moderate-income families in large cities. To the extent that either price changes or the type of purchases of other income groups or of persons living in smaller communities vary from the pattern for the city wage earner, the index fails to provide a national picture. Further, the index is based on only a few items. In the index of medical care costs, the surgeons' fees are based on only two procedures, appendectomy and tonsillectomy. Although these fees are among the most standard surgical fees, fees for other surgical techniques are not reflected in the index. Similarly, the newer drugs are not included in the index.

**Table 9.2.—Consumers' price index and price indexes for medical care for moderate-income families in large cities, 1949–51**

[1935–39=100]

Item	1949	1950	1951	Item	1949	1950	1951
Consumers' price index.....	170. 2	171. 9	185. 6	Medical care excluding drugs—			
Medical care and drugs.....	144. 9	147. 9	155. 0	Continued			
Medical care, excluding drugs....	149. 7	153. 1	160. 9	Dentists' fees.....	150. 6	154. 3	160. 0
Physicians' fees (general				Fillings.....	150. 9	154. 5	159. 5
practitioner, surgeon,				Extractions.....	152. 9	156. 9	164. 5
specialist).....	137. 9	140. 0	145. 2	Optometrists' fees, eye-			
General practitioners'				glasses.....	127. 6	128. 9	134. 6
fees.....	137. 7	139. 8	145. 2	Hospital rates.....	226. 8	235. 3	260. 7
Office visit.....	139. 0	140. 9	146. 0	Men's pay ward.....	253. 5	265. 5	297. 2
House visit.....	131. 4	133. 9	138. 3	Semiprivate room.....	221. 7	229. 6	253. 6
Obstetric case.....	155. 6	157. 3	167. 3	Private room.....	207. 7	213. 7	233. 7
Surgeons' and special-				Group hospitalization <sup>1</sup> .....	( <sup>1</sup> )	100. 0	103. 1
ists' fees.....	138. 4	140. 6	144. 3	Prescription and drugs.....	123. 3	124. 8	128. 4
Appendectomy,				Prescriptions.....	137. 1	140. 7	147. 7
adult.....	134. 2	137. 4	141. 6				
Tonsillectomy,							
child.....	142. 8	144. 0	147. 2				

<sup>1</sup> December, 1950=100; group hospitalization was not priced in 1949.

SOURCE: Frank G. Dickinson. The Cost of Living and Medical Care Prices. Journal of the American Medical Association, vol. 149, p. 1157 (Chicago, Ill., July 19, 1952).

For all income groups combined, more than one-half the families in each of three eastern cities surveyed in 1947 spent \$100 or more for medical care.

In the lowest income group (under \$3,000) more than one-third of the families in each city had medical expenses of \$100 or more.

In the highest income group (\$5,000 and over) medical expenditures of that amount were reported by 80 percent of the families.

**Table 9.3.—Percentage distribution of families and single persons in selected cities, by income group and by amount of medical expenditures, 1947**

Income group	Families		Percent of families with specified medical expenditures				
	Number	Percent	Under \$40	\$40-\$100	\$100-\$300	\$300-\$500	\$500 and over
<b>MANCHESTER, N. H.</b>							
All incomes.....	190	100. 0	17. 4	31. 6	38. 9	7. 4	4. 7
Under \$3,000.....	74	100. 0	20. 4	37. 8	33. 8	4. 0	4. 0
\$3,000-\$5,000.....	85	100. 0	18. 8	32. 9	35. 4	8. 2	4. 7
\$5,000 and over.....	31	100. 0	6. 4	12. 9	61. 3	13. 0	6. 4
<b>WASHINGTON, D. C.</b>							
All incomes.....	273	100. 0	16. 5	18. 3	41. 0	16. 5	7. 7
Under \$3,000.....	65	100. 0	33. 8	27. 7	27. 7	6. 2	4. 6
\$3,000-\$5,000.....	93	100. 0	16. 1	20. 4	40. 9	19. 4	3. 2
\$5,000 and over.....	115	100. 0	6. 9	11. 3	48. 7	20. 0	13. 1
<b>RICHMOND, VA.</b>							
All incomes.....	178	100. 0	16. 8	26. 4	41. 0	7. 9	7. 9
Under \$3,000.....	76	100. 0	31. 6	30. 3	32. 8	5. 3	-----
\$3,000-\$5,000.....	67	100. 0	3. 0	31. 3	49. 3	8. 9	7. 5
\$5,000 and over.....	35	100. 0	11. 4	8. 6	42. 9	11. 4	25. 7

SOURCE: Public Health Service. Prepared from unpublished data of the Bureau of Labor Statistics (Washington, D. C., 1947).



In 1941 the average medical care expenditure, though higher in absolute amounts among higher-income groups, represented a larger percentage of income for the lowest income groups than for the highest.

Thus, families and single consumers with money income of less than \$500 spent 9 percent of their income for medical care. Among income groups with \$2,000–\$5,000, the proportion was 4 percent.

Table 9.4.—Average money income and medical care expenditures of all families and single consumers, and percent of income spent for medical care, by type of community and money income group, 1941

Type of community and money income group	Average money income	Average medical care expenditure	Percent of income spent for medical care	Type of community and money income group	Average money income	Average medical care expenditure	Percent of income spent for medical care
All families and single consumers <sup>1</sup> -----	\$1, 974	\$84	4. 3	Money income group:			
				Less than \$500-----	\$290	\$27	9. 3
				\$500–\$999-----	737	40	5. 4
Urban <sup>1</sup> -----	2, 409	96	4. 0	\$1,000–\$1,499-----	1, 242	63	5. 1
Rural nonfarm <sup>1</sup> -----	1, 311	67	5. 1	\$1,500–\$1,999-----	1, 736	86	5. 0
Rural farm <sup>1</sup> -----	1, 134	60	5. 3	\$2,000–\$2,999-----	2, 446	102	4. 2
				\$3,000–\$4,999-----	3, 731	152	4. 1

<sup>1</sup> Includes families with negative incomes and incomes of \$5,000 and over, not shown separately.

SOURCE: Bureau of Labor Statistics. Family Spending and Saving in Wartime, 1945, pp. 71–75 (Washington, D. C.).

Among urban three-person families studied in 1941 medical care expenses increased—both in average amount and as a proportion of net money income—with increasing family income.

Among rural three-person families living on farms the average medical care expenditure represented a higher proportion of money income among the low-income groups than among higher-income groups.

Table 9.5.—Average money income and medical care expenditures of 3-person families, and percent of income spent for medical care, by urban-rural residence and income group, United States, 1941

Residence and income group <sup>1</sup>	Net money income <sup>2</sup>	Medical care expenditures		Residence and income group <sup>1</sup>	Net money income <sup>2</sup>	Medical care expenditures	
		Amount	Percent of money income <sup>2</sup>			Amount	Percent of money income
Urban:				Farm:			
\$500-\$1,000.....	\$777	\$23	3	\$250-\$499.....	\$410	\$49	12
\$1,500-\$2,000.....	1,744	90	5	\$750-\$999.....	881	98	11
\$2,500-\$3,000.....	2,745	97	4	\$1,500-\$1,999.....	1,724	70	4
\$5,000-\$10,000.....	6,977	391	6	\$3,000-\$4,999.....	4,138	136	3
Rural nonfarm:							
\$0-\$499.....	377	20	5				
\$500-\$999.....	744	45	6				
\$1,500-\$1,999.....	1,719	86	5				
\$3,000-\$4,999.....	3,726	111	3				

<sup>1</sup> Note that income groupings are not the same for all three residence groupings of families.

<sup>2</sup> Includes inheritances and gifts.

SOURCES: Bureau of Labor Statistics Bulletin No. 822. Family Spending and Saving in Wartime (Washington, D. C., 1945).

Department of Agriculture Miscellaneous Publication No. 661. Guiding Family Spending, pp. 21-22 (Washington, D. C., 1949).

In a study of two New York counties during 12 months ending in 1949 the percentage of rural households using the services of physicians increased as income increased. This relationship was found in both counties for the services of general physicians and of medical specialists.

About four-fifths of households with income of less than \$1,000 used a general physician while about 95 percent of households with income of over \$3,000 used a general physician. Only about 1 out of 20 low-income households used a medical specialist whereas 1 out of 4 of the high-income households used a medical specialist.

**Table 9.6.—Use of medical care by rural households in 2 New York counties by service and income group, 12 months ending in 1949**

Service and income group	Percent of households <sup>1</sup> using care		Service and income group	Percent of households <sup>1</sup> using care	
	Cortland County	Oswego County		Cortland County	Oswego County
General physician:			Medical specialist:		
Under \$1,000.....	76.1	80.0	Under \$1,000.....	6.5	5.0
\$1,000-\$2,999.....	88.8	93.8	\$1,000-\$2,999.....	19.8	12.4
\$3,000 and over.....	93.9	95.4	\$3,000 and over.....	22.7	27.6

<sup>1</sup> Study includes 250 representative rural households (950 persons) in Cortland County and 283 rural households (966 persons) in Oswego County.

SOURCES: Olaf F. Larson and Donald G. Hay. Differential Use of Health Resources by Rural People. New York

State Journal of Medicine, vol. 52, p. 47 (New York City, N. Y.). Olaf F. Larson and Donald G. Hay. Use of Health Resources by Rural People in Two Central New York Counties, 1949. New York State College of Agriculture (Ithaca, N. Y., 1951).



Medical and dental expenditures of moderate-income families of wage earners surveyed during 1947-48 in the San Francisco Bay area ranged from 0 to \$2,628, with an average of \$297 per family. On the average, the families spent 7.6 percent of their income for medical care. Some families spent as much as 66 percent of their income in one year for medical care.

In interpreting these statistics and the following chart based on the same study, it should be noted that the groups selected were in occupations where full-time earnings were roughly equivalent to the average for San Francisco production workers in manufacturing industries, that is, between \$3,000 and \$4,000. The total income of many families was increased by premium rates of pay, overtime pay, earnings of other persons, and other factors. The median total family income was \$300 to \$500 higher than Census estimates for urban families throughout the United States and \$500 to \$800 higher than the Federal Reserve Board national estimates for spending units whose head was a skilled or semiskilled worker.

Table 9.7.—Total expenditures and percent of family income spent for all medical and dental care, San Francisco Bay Area, 1947-48

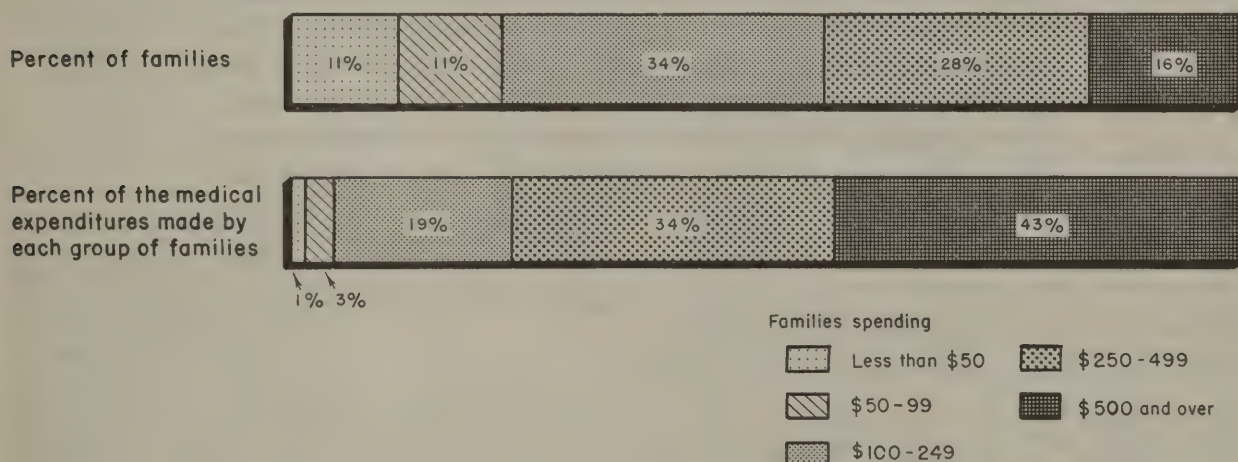
Family expenditures and percent of family income spent for all medical and dental care	Families		Family expenditures and percent of family income spent for all medical and dental care	Families	
	Number	Percent		Number	Percent
FAMILY EXPENDITURES			PERCENT OF FAMILY INCOME		
All families.....	455	100.0	All families.....	455	100.0
Average expenditure—\$297.			Average percent of family income—7.6.		
Less than \$50.....	48	10.5	Less than 2.5.....	109	24.0
\$50-\$99.....	51	11.2	2.5-4.9.....	94	20.7
\$100-\$199.....	115	25.3	5.0-7.4.....	86	18.9
\$200-\$299.....	79	17.4	7.5-9.9.....	54	11.9
\$300-\$399.....	51	11.2	10.0-12.4.....	31	6.8
\$400-\$499.....	40	8.8	12.5-14.9.....	29	6.4
\$500-\$599.....	23	5.1	15.0-19.9.....	27	5.9
\$600-\$699.....	18	4.0	20.0-24.9.....	9	2.0
\$700-\$999.....	15	3.3	25.0 and over.....	16	3.5
\$1,000-\$1,499.....	9	2.0			
\$1,500 and over.....	6	1.3			

SOURCE: Emily H. Huntington. Cost of Medical Care: The Expenditures for Medical Care of 455 Families in the San Francisco Bay Area, p. 93. University of California Press (Berkeley, Calif., 1951).

About 16 percent of the moderate-income families of wage-earners surveyed in the San Francisco Bay area had medical bills of \$500 or more in the survey year and 28 percent had bills of \$250-\$499. About 22 percent spent less than \$100 for medical care in the year.

The 16 percent of the families with medical expenses of \$500 or more accounted for 43 percent of the total medical expenses of all families surveyed, while the families spending less than \$100 for medical care (22 percent) represented about 4 percent of the total medical bill.

Chart 9A.—Families and total medical expenditures distributed by the size of the family medical bill, San Francisco Bay Area, 1947-48.



Source: See source, table 9.7.

A direct relationship was found between "level of living" and utilization of medical services in 2 of 4 Mississippi counties. The higher the level of living, measured in terms of possessions, education, and participation in community activities, the greater the percentage of persons using the services of doctors, dentists, and general hospitals, and the greater the volume of services per 1,000 persons.

In one county (Bolivar), for which the data related to Negroes only, the relationship between lower, middle, and upper thirds in the scale of level of living and utilization of medical services was not so direct. A partial explanation is the fact that over two-thirds of the survey population were sharecroppers, many of whom receive medical care as part of their "furnish" which also includes food and clothing. Also the range in levels of living among the surveyed families was probably not great enough to show clearly the differences in use of medical care caused by social and economic factors. In another county (Forrest), the middle third exceeded both lower and upper thirds in utilization of physicians' services.



Table 9.8.—Percent of persons using selected medical services and volume per 1,000 persons, by level of living, 4 Mississippi counties

County and selected medical services	Level of living score <sup>1</sup>			County and selected medical services	Level of living score <sup>1</sup>		
	Lower ⅓	Middle ⅓	Upper ⅓		Lower ⅓	Middle ⅓	Upper ⅓
	Percent of persons using services				Volume of services used per 1,000 persons		
Choctaw: <sup>2</sup>				Choctaw: <sup>2</sup>			
Doctor.....	41	47	66	Doctor calls.....	1, 195	1, 431	2, 769
Dentist.....	13	22	34	Dentists calls.....	223	420	719
General hospital.....	3	5	6	Days in general hos- tals <sup>4</sup> .....	315	365	718
Lee: <sup>2</sup>				Lee: <sup>2</sup>			
Doctor.....	38	51	62	Doctor calls.....	1, 333	1, 902	2, 502
Dentist.....	10	14	36	Dentist calls.....	170	263	759
General hospital.....	3	4	9	Days in general hospi- tal <sup>4</sup> .....	158	318	569
Forrest: <sup>3</sup>				Forrest: <sup>3</sup>			
Doctor.....	38	56	51	Doctor calls.....	1, 310	2, 759	2, 256
Dentist.....	11	26	33	Dentist calls.....	161	534	996
General hospital.....	4	7	10	Days in general hospi- tal <sup>4</sup> .....	230	395	513
Bolivar (Negroes only): <sup>3</sup>				Bolivar (Negroes only): <sup>3</sup>			
Doctor.....	37	37	37	Doctor calls.....	825	1, 224	848
Dentist.....	7	11	14	Dentist calls.....	77	194	188
Hospital.....	19	19	26	Days in general hospi- tal <sup>4</sup> .....	350	246	502

<sup>1</sup> Level of living may be measured by material possessions, education, participation in community activities and related items. Scale used here is by W. H. Sewell. The scores for the three groups varied somewhat in each of the counties according to the distribution of the sample population studied in that county.

<sup>2</sup> Data for year 1949.

<sup>3</sup> Data for year 1950.

<sup>4</sup> Average days per year over a 5-year period. Excludes persons hospitalized in institutional hospitals, such as specialized State hospitals and Veterans hospitals.

SOURCES: Robert E. Galloway and Harold F. Kaufman. Health Practices of Rural People in Lee County. Sociology and Rural Life, Series No. 1. Mississippi State Agricultural Experiment Station (State College, Miss., December 1950).

Robert E. Galloway and Harold F. Kaufman. Health Practices in Choctaw County. Sociology and Rural Life, Series No. 2. Mississippi State College Agricultural Experiment Station (State College, Miss., December 1950).

Robert E. Galloway and Marion T. Loftin. Health Practices of Rural Negroes in Bolivar County. Sociology and Rural Life, Series No. 3. Mississippi State College Agricultural Experiment Station (State College, Miss., April 1951).

Robert E. Galloway and Marion T. Loftin. Health Practices of Rural Population in Forrest County. Sociology and Rural Life, Series No. 3. Mississippi State College Agricultural Experiment Station. (State College, Miss., July 1951).

William H. Sewell. A Short Form of the Farm Family Socioeconomic Scale. Rural Sociology, vol. 8, No. 2, pp. 161-170. (Raleigh, N. C., June 1943).

In two Mississippi counties, medical care expenditures in 1945 represented higher proportions of total consumption expenditures for whites than for Negroes in rural nonfarm units and in farm units with \$200 or more in cash sales.

In farm units with less than \$200 in farm sales, the proportion of consumption expenditures spent for medical care was smaller for the white families and single consumers (5.4 percent) than for Negroes (9.9 percent).

In farm units with \$200 or more in farm sales, the percentage of total consumption expenditures spent for medical care was higher for farm owners than for farm renters, and was lower still for share croppers.

This study covered nearly 1,200 families and single consumers. The farm units included comprised three-fourths of all rural consumer units in Lee and Jones counties and the rural nonfarm units, one-fourth. More than two-thirds of the rural consumer units in the two counties had cash income in 1945 under \$2,000; over one-third had less than \$1,000 averaging a little more than \$500. The cash income level was higher for rural nonfarm than for farm units.

**Table 9.9.—Average total consumption expenditures and expenditures for medical care of rural farm and nonfarm families and single consumers, by race and tenure, Lee and Jones Counties, Mississippi, 1945**

[1,200 families and single consumers]

Farm and rural nonfarm units, county, race, and tenure	Average total consumption expenditures	Medical care expenditures <sup>1</sup>		Farm and rural nonfarm units, county, race, and tenure	Average total consumption expenditures	Medical care expenditures <sup>1</sup>	
		Average amount	Percent of total consumption expenditures			Average amount	Percent of total consumption expenditures
Rural nonfarm units: <sup>2</sup>				Farm, units \$200 or more from sales, both counties—Continued			
Lee County:				Tenure:			
White.....	\$1, 556	\$77	4. 9	Owners.....	\$1, 137	\$89	7. 8
Negro.....	559	16	2. 9	Renters.....	825	59	7. 2
Jones County:				Sharecroppers.....	663	28	4. 2
White.....	1, 788	112	6. 3	Farms, units with less than \$200 from sales, both counties: <sup>2</sup>			
Negro.....	1, 022	61	6. 0	White.....	1, 497	81	5. 4
Farm, units with \$200 or more from sales, both counties: <sup>2</sup>				Negro.....	850	84	9. 9
Race:							
White.....	1, 064	79	7. 4				
Negro.....	614	27	4. 4				

<sup>1</sup> Excludes premium payments for health and accident insurance.

<sup>2</sup> Average cash income after deduction of expenditures for food, fuel and housing was \$1,248 for rural nonfarm families, \$1,028 for farm units with \$200 or more from sales and \$1,073 for farm units with less than \$200 from sales.

SOURCE: Barbara B. Reagan and Evelyn Grossman. Rural Levels of Living in Lee and Jones Counties, Mississippi 1945, pp. 10, 27, Information Bulletin 41 (Washington, D. C., 1951).

The percentage of total family income spent for medical care in the lowest income group (7.2 percent) was more than twice that in the highest income group (3.5 percent), according to a study in a rural county in Kentucky.

For all income groups combined, one-fourth of the families had medical expenditures of \$100 or more. The proportion of families with medical expenditures of that size rose from 11 percent in the lowest income group to 43 percent in the highest.

Table 9.10.—Family medical care expenditures in a rural county in Kentucky, by family income group, 1948

Family income group	Percent of total income spent for medical care	Total	Percent of families <sup>1</sup> by amount of medical care expenditures			
			Less than \$10	\$10-\$59	\$60-\$99	\$100 or more
All incomes .....	6.0	100.0	24.0	38.0	12.4	25.6
Under \$1,000 .....	7.2	100.0	35.7	46.4	7.2	10.7
\$1,000-\$1,999 .....	6.8	100.0	30.4	37.0	6.5	26.1
\$2,000-\$2,999 .....	6.9	100.0	6.1	45.4	18.2	30.3
\$3,000 or more .....	3.5	100.0	21.4	7.1	28.6	42.9

<sup>1</sup> Based on random sample of 122 families including 480 persons.

SOURCE: Marie Mason. Rural Family Health in a Selected County in Kentucky, p. 41. Kentucky Agricultural Experiment Station (Lexington, Ky., 1949).



## 10. MEDICAL CARE EXPENDITURES AND DEBTS

About one-fifth of the Nation's "spending units" owed some debt to their doctors, dentists, or hospitals at the beginning of 1952. The average medical debt of these units was approximately \$105, according to the 1952 Survey of Consumer Finances of the Federal Reserve Board. The median medical debt was about \$50. While about 75 percent of consumers with medical debts owed less than \$100 the substantial sums owed by the remainder raised the average for all concerned.

In certain categories of consumer spending units more than one-fifth of the group owed debts to their doctors, dentists or hospitals. These categories include people with annual incomes between \$2,000 and \$4,000: farm operators, those in skilled, semiskilled, unskilled and service occupations; and married couples with children, particularly those with children under 18.

If the survey of the Federal Reserve Board accurately reflects the debts of all consumers, it may be estimated that consumers owed approximately \$1 billion to their doctors, dentists, and hospitals at the beginning of 1952.

Table 10.1.—Percentage distribution of spending units having debts on medical bills, by income, by occupation, by age of head of household, and by family status, early 1952

Group characteristic	Number of cases in sample	Percent of spending units <sup>1</sup>					
		Total	Some debt on medical bills <sup>2</sup>	Amount of debt on medical bills			
				\$1-\$99	\$100-\$199	\$200 and over	Not ascertained
All spending units.....	2, 820	100	19	14	3	2	( <sup>3</sup> )
Income before taxes, 1951:							
Under \$1,000.....	278	100	17	14	2	1	( <sup>3</sup> )
\$1,000-\$1,999.....	359	100	18	13	1	3	1
\$2,000-\$2,999.....	454	100	22	17	2	3	( <sup>3</sup> )
\$3,000-\$3,999.....	482	100	22	17	2	3	( <sup>3</sup> )
\$4,000-\$4,999.....	424	100	19	12	4	3	( <sup>3</sup> )
\$5,000-\$7,499.....	490	100	18	12	4	2	( <sup>3</sup> )
\$7,500 and over.....	333	100	14	10	2	2	( <sup>3</sup> )
Occupation: <sup>4 5</sup>							
Professional and semiprofessional.....	273	100	12	9	2	1	( <sup>3</sup> )
Managerial.....	152	100	16	8	2	6	( <sup>3</sup> )
Self-employed.....	212	100	10	6	2	2	( <sup>3</sup> )
Clerical and sales.....	430	100	19	14	3	2	( <sup>3</sup> )
Skilled and semiskilled.....	780	100	23	16	4	3	( <sup>3</sup> )
Unskilled and service.....	280	100	21	14	2	4	1
Farm operator.....	215	100	23	18	2	3	( <sup>3</sup> )
Retired.....	178	100	13	10	( <sup>3</sup> )	1	2
Other <sup>6</sup> .....	266	100	21	17	1	2	1
Age: <sup>4 5</sup>							
18-24.....	218	100	24	21	2	1	( <sup>3</sup> )
25-34.....	634	100	23	16	3	4	( <sup>3</sup> )
35-44.....	619	100	23	16	3	3	1
45-54.....	547	100	18	12	4	2	( <sup>3</sup> )
55-64.....	382	100	13	9	1	2	1
65 or over.....	362	100	13	11	( <sup>3</sup> )	1	1
Family status:							
Single person:							
Age 18-44.....	317	100	11	10	1	( <sup>3</sup> )	( <sup>3</sup> )
Age 45 or over.....	316	100	13	9	2	1	1
Married <sup>7</sup>							
Age 18-44, no children under 18.....	213	100	11	9	1	1	( <sup>3</sup> )
Age 18-44, children under 18.....	842	100	30	21	4	5	( <sup>3</sup> )
Age 45 or over, no children under 18.....	616	100	11	8	1	2	( <sup>3</sup> )
Age 45 or over, children under 18.....	302	100	24	18	4	2	( <sup>3</sup> )
Other <sup>8</sup> .....	122	100	27	23	1	3	( <sup>3</sup> )

<sup>1</sup> A spending unit is a group of persons living in the same dwelling and related by blood, marriage or adoption, who pool their incomes for their major items of expense. A family may include more than one spending unit because adult children, parents or other relatives living in one dwelling do not necessarily pool their incomes with that of the head of the family.

<sup>2</sup> Includes debts at the beginning of 1952 to doctors, dentists, and hospitals for medical and dental services.

<sup>3</sup> No cases reported or less than ½ of 1 percent.

<sup>4</sup> Refers to person considered as the head of the spending unit.

<sup>5</sup> Total number of cases exceeds sum of various groups because of inclusion of cases for which relevant characteristics were not ascertained.

<sup>6</sup> Includes spending units headed by housewives, unemployed persons, or students.

<sup>7</sup> Both husband and wife in spending unit.

<sup>8</sup> Includes spending units with or without children from which husband or wife is absent.

SOURCE: Federal Reserve Board. 1952 Survey of Consumer Finances. Pt. III. Income, Selected Investments and Short-term Debt of Consumers. Federal Reserve Bulletin. (Washington, D. C., September 1952.)

More applications for loans are filed with small loan companies by persons seeking assistance with medical, dental, and hospital expenses than for any other single purpose, if we can judge from the record of the three largest small loan companies in America. These companies did over 46 percent of the business of all small loan companies in the country in 1951.

Usually such loans are limited by State law to a maximum of \$300 for each borrower, and the rates of interest, which vary from State to State, are within the range of  $2\frac{1}{2}$  to 3 percent per month on the unpaid monthly balance of outstanding loans. In most cases the effective rates of interest required to be paid on these loans on an annual basis range from 30 to 36 percent.

Borrowers from the small loan companies are usually in the lower income brackets such as skilled and semiskilled workers and those holding clerical positions. The average annual income of the majority of borrowers from these three small loan companies does not exceed \$3,600 and is usually about \$3,000.

Together these three companies loaned in 1951 over \$1,100 million, of which more than 20 percent (based on data contained in the registration statements of these companies filed with the Securities and Exchange Commission) was for loans used solely for medical, hospital and related expenses. In 1951 all small loan companies taken together made a total of \$2,437 million of loans, and had outstanding at the end of the year a total of \$1,268 million. Assuming that the 20-percent figure which represents the average experience of the largest three companies is also representative of the experience of all small loan companies, it may be estimated that over \$480 million was loaned in 1951 by all companies for medical and related purposes. Assuming further that the average effective rate of interest is about 33 percent on the principal amount of loans outstanding, it may be estimated that interest payments on the 20 percent of such loans incurred for medical and related purposes amount to over \$84 million a year, in addition to repayments of principal on over \$480 million of loans made during the year.



Table 10.2.—Amount and percentage distribution of loans made by the three largest "small loan" companies, by purpose of loan and income of borrowers

	Company <sup>1</sup>		
	A	B	C
Number of loans.....	1, 008, 363	1, 539, 674	588, 512
Consolidation of existing debts <sup>2</sup> .....	337, 800	303, 315	189, 006
Single-purpose loans.....	670, 563	1, 236, 359	399, 506
Average size of all loans.....	\$227	\$246	\$297
	Percent		
Single-purpose loans.....	100. 0	100. 0	100. 0
Medical, hospital and dental.....	20. 6	21. 5	22. 2
Clothing, food, fuel, and rent.....	11. 9	17. 5	25. 8
Repairs.....	12. 8	9. 5	10. 5
Travel and education.....	12. 0	9. 3	10. 7
Taxes, mortgages, interest, insurance.....	7. 7	10. 1	6. 5
Home furnishings.....	2. 0	7. 5	10. 5
Automobiles.....	4. 2	3. 6	3. 8
All other.....	28. 8	20. 0	10. 0
Annual income of all borrowers:			
Average annual income.....	\$3, 156	\$3, 060	( <sup>3</sup> )
	Percent		
Income distribution.....			
All borrowers.....	( <sup>3</sup> )	100. 0	100. 0
\$1,800 or less.....		11. 9	2. 7
\$1,801-\$2, 400.....		25. 3	7. 7
\$2,401-\$3,000.....		22. 5	17. 9
\$3,001-\$3,600.....		17. 6	29. 3
\$3,601-\$4,800.....		14. 4	25. 7
\$4,801 or more.....		8. 3	16. 7

<sup>1</sup> These data are for 1948, 1949 and 1951 for companies, A, B and C, respectively. Combining the 3 companies' experience for the 3 different years, loans aggregated \$800 million. More recent data available on the amount of loans by companies A and B show loans of \$1,100 million for the 3 companies in 1951.

<sup>2</sup> Represents consolidation of several small debts in a

single obligation. The reasons for incurring the initial debts and the percent of these consolidated loans which are in part for medical bills, are not known.

<sup>3</sup> Not available.

SOURCE: Registration statements of each of the 3 companies filed with the Securities and Exchange Commission.

About 8 percent of the 52 million people filing income tax returns in 1948 claimed medical, dental, and hospital expenses over and above 5 percent of their income. About half of those who claimed such income tax deductions for medical expenses had incomes of between \$2,000 and \$4,000.

People in all income groups having these unusually large medical bills used an average of 13 percent of their income for medical purposes. This 13 percent takes into account all medical expenditures of those reporting, including the nondeductible expenses equal to 5 percent of adjusted gross income. The 137,000 persons having incomes of less than \$1,000, who claimed medical, dental, and hospital deductions, spent 26 percent of their adjusted gross income for medical care, in addition to the 5 percent that is nondeductible. In general, persons in the higher economic brackets spend a smaller proportion of their income for medical care than those in the lower economic brackets.

Recent unpublished estimates of the Bureau of Internal Revenue indicate that at current levels of income the amount of deductions for medical care on income tax returns amounts to \$1.8 billion, of which \$0.5 billion is taken by persons age 65 and over. Tax revenue loss resulting from these deductions is \$0.4 billion a year, of which \$0.1 billion is for those over 65 years of age. (Beginning in 1951, people over 65 were allowed to deduct all their medical care expenses plus the usual allowance for medical care expenses of dependents.)

**Table 10.3.—Number and percent of income tax returns with medical and dental deductions, and amount of such deductions compared with adjusted gross income, by income class, 1948**

Adjusted gross income classes <sup>1</sup>	Number of individual tax returns		Returns with medical and dental deductions <sup>2</sup>			
	Total (thousands)	With medical and dental deductions		Adjusted gross income reported on returns with medical deductions (millions of dollars)	Medical and dental deductions	
		Number (thousands)	Percent of total <sup>3</sup>		Amount <sup>4</sup> (millions of dollars)	Percent of adjusted gross income <sup>4</sup>
Total.....	<sup>5</sup> 52, 072	4, 134	7. 9	<sup>6</sup> \$15, 486	\$1, 304	8. 4
No adjusted gross income.....	326	8	2. 5	7 32	4	-----
Under \$1,000 <sup>8</sup> .....	7, 771	137	1. 8	108	28	26. 0
\$1,000—\$1,999.....	11, 145	607	5. 4	947	147	15. 5
\$2,000—\$2,999.....	12, 459	1, 041	8. 4	2, 628	278	10. 6
\$3,000—\$3,999.....	9, 397	1, 059	11. 3	3, 684	299	8. 1
\$4,000—\$4,999.....	5, 095	628	12. 3	2, 803	210	7. 5
\$5,000—\$6,999.....	3, 473	428	12. 3	2, 463	167	6. 8
\$7,000—\$9,999.....	1, 193	124	10. 4	1, 007	71	7. 1
\$10,000—\$14,999.....	600	55	9. 2	657	44	6. 7
\$15,000—\$24,999.....	359	31	8. 6	567	31	5. 6
\$25,000—\$49,999.....	185	13	6. 9	421	18	4. 2
\$50,000—\$99,999.....	53	3	4. 8	164	5	2. 9
\$100,000 or more.....	16	( <sup>9</sup> )	2. 8	69	1	1. 4

<sup>1</sup> Adjusted gross income means gross income minus allowable trade and business deductions, expenses of travel and lodging in connection with employment, reimbursed expenses in connection with employment, deductions attributable to rents and royalties, certain deductions of life tenants and income beneficiaries of property held in trust, and allowable losses from sales or exchanges of property. Should these allowable deductions exceed the gross income, there is an adjusted gross deficit. The adjusted gross income classes are based on the amount of adjusted gross income, except that returns with adjusted gross deficit are designated "No adjusted gross income" without regard to the amount.

<sup>2</sup> Medical and dental expenses, reported on returns with itemized deductions, paid for the care of the taxpayer, his spouse, or dependents, not compensated by insurance or otherwise, which exceed 5 percent of the adjusted gross income. The deduction cannot exceed \$1,250 multiplied by the number of exemptions other than those for age and blindness with a maximum deduction of \$2,500, except

on a joint return of husband and wife the maximum is \$5,000.

<sup>3</sup> Percentages based on unrounded numbers of tax returns and dollar amounts in thousands.

<sup>4</sup> Reported on returns with medical deductions. Does not include nondeductible medical expenses equal to 5 percent of adjusted gross income.

<sup>5</sup> Tax returns claimed 129,104,000 exemptions (other than age and blindness) for the taxpayer, his spouse, on a joint return, and each dependent.

<sup>6</sup> Adjusted gross income less adjusted gross deficit.

<sup>7</sup> Adjusted gross deficit.

<sup>8</sup> Persons with gross incomes below \$600 are not required to file returns. However, many such persons do file returns, chiefly for the purpose of claiming refunds of tax prepayments; and those returns are included in the tabulation.

<sup>9</sup> 452 tax returns.

SOURCE: Data specially prepared for the Commission by the Bureau of Internal Revenue.



Prepayment for health services tends to equalize the cost of illness among those covered. This is evidenced by less variation in the range of expenditures (especially for families with incomes of less than \$3,000) found in the Bureau of Labor Statistics survey of families in three large cities. In interpreting the data, the small size of the sample should be recognized. When these samples of families are subdivided by income class, and further as between members and non-members of prepayment plans, some of the numbers become rather small and could involve sampling errors as great as the differences in the averages.

The premiums themselves tend to boost outlays at the lower end of the range; for example, few families with such protection have less than \$40 of medical expenses per annum. In the upper range of expenditures the data do not show consistent differences between nonmember and member families. Approximately the same proportion of families with prepayment coverage had expenditures exceeding \$300 as families without such protection.

The data shown are from special unpublished tabulations of schedules obtained by the Bureau of Labor Statistics in the course of surveys of consumer expenditures in Denver, Detroit, and Houston. The information tabulated was the number of consumer units reporting expenditures or deductions from wages for hospitalization insurance and medical care insurance other than expenditures for commercial health and accident insurance. This exclusion was made necessary by the definition used by the Bureau of Labor Statistics for medical care expenditures and for premiums for health insurance. Payments for medical care by the family offset by cash indemnity payments are counted as medical care expenses of the family and the indemnity as income of the family.

**Table 10.4.—Percentage distribution of families, by income group, membership in some type of prepayment medical or hospital care plan and by amount of medical expenditure, selected cities, 1948**

Net income group and membership in a prepayment plan	Families		Percent of families with specified medical expenditures <sup>1</sup>					
	Num- ber	Per- cent	No amount	Under \$40	\$40- \$100	\$100- \$300	\$300- \$500	\$500 and over
Under \$3,000:								
Nonmembers:								
Denver, Colo.....	48	100.0	10.4	35.4	10.5	18.7	12.5	12.5
Detroit, Mich.....	77	100.0	13.0	35.1	26.0	16.8	7.8	1.3
Houston, Tex.....	65	100.0	1.5	32.3	32.3	24.6	6.2	3.1
Members:								
Denver, Colo.....	28	100.0		7.1	39.3	50.0	3.6	
Detroit, Mich.....	51	100.0		19.6	25.5	47.1	5.9	1.9
Houston, Tex.....	28	100.0		10.7	39.4	32.1	10.7	7.1
\$3,000-5,000:								
Nonmembers:								
Denver, Colo.....	10	100.0		30.0		50.0	10.0	10.0
Detroit, Mich.....	58	100.0		29.3	22.4	27.6	13.8	6.9
Houston, Tex.....	43	100.0		14.0	20.9	46.5	13.9	4.7
Members:								
Denver, Colo.....	60	100.0		1.7	18.3	65.0	10.0	5.0
Detroit, Mich.....	135	100.0		5.2	22.9	51.9	15.6	4.4
Houston, Tex.....	50	100.0		2.0	14.0	50.0	16.0	18.0
\$5,000 and over:								
Nonmembers:								
Denver, Colo.....	10	100.0			20.0	40.0		40.0
Detroit, Mich.....	31	100.0		6.4	12.9	45.2	25.8	9.7
Houston, Tex.....	19	100.0		21.0	26.3	36.9	10.5	5.3
Members:								
Denver, Colo.....	38	100.0		2.6	10.5	44.8	31.6	10.5
Detroit, Mich.....	58	100.0		3.4	15.5	48.3	12.1	20.7
Houston, Tex.....	28	100.0			10.7	35.7	28.6	25.0

<sup>1</sup> Including expenditures for prepayment premiums.

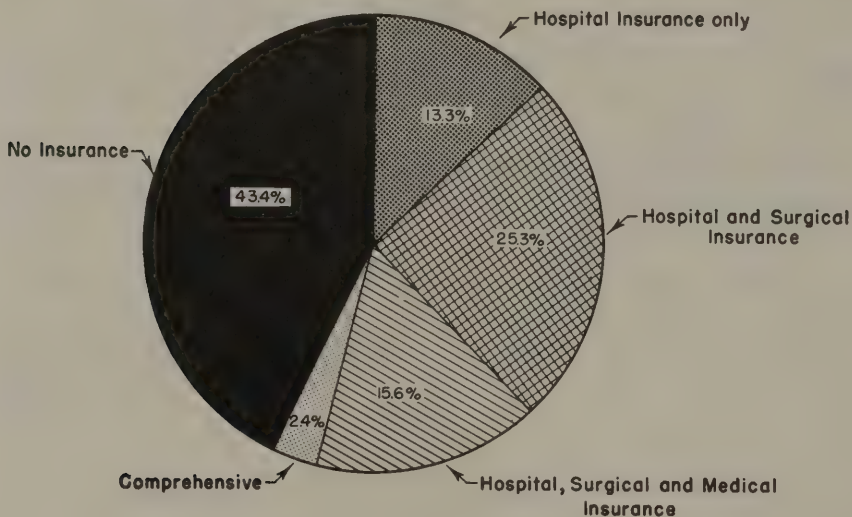
SOURCE: Developed by the Public Health Service from unpublished data of the Bureau of Labor Statistics (Washington, D. C., October 1952).

## 11. PREPAYMENT

At the end of 1951, an estimated 85 million persons, about 57 percent of the civilian population of the United States, had some insurance against the costs of medical care. Somewhat more than 65 million (exclusive of those in the Armed Forces) had no such insurance protection.

About 13 percent of the population had hospital insurance only and another 25 percent of the population was also covered for surgical expenses. In addition, about 16 percent of the American people had limited medical insurance, which in many cases provides physicians' care only in the hospital. Only a handful of the population, less than 3 people out of every 100 had prepaid comprehensive medical services.

Chart 11A.—Percent of the population having different types of prepaid medical care in the United States at the end of 1951.





One-half of the people who have purchased protection against hospital bills through voluntary insurance plans hold commercial insurance company policies; most of the rest are enrolled through Blue Cross. Of the estimated 65 million people with some protection against the cost of physicians' services (mostly surgical), 40 million have commercial insurance company policies; about 20 million are Blue Shield subscribers and approximately 5 million people are enrolled in independent plans.

Benefits provided by different health insurance policies show tremendous variations and the statement that 85 million people have some protection becomes meaningful only to the extent that the degree of protection is specified. Broad categories used here include Hospital insurance, Surgical only, Surgical and limited medical, and Comprehensive benefits. Some of the 85 million people hold a small indemnity policy which repays some of the cost of hospital care for certain conditions. Others may be group subscribers to a service program providing extensive medical and hospital care for all types of illness.

Some plans classified as Limited medical and surgical may actually provide liberal benefits which, if more precise information were available, would place them in the category of Comprehensive plans. Other plans which are classified as Surgical and limited medical have very minimal medical benefits. Even among the three and a half million people listed as having Comprehensive benefits, some belong to plans offering far greater benefits than others.

Table 11.1.—Estimated number of persons having different types of medical care insurance, December 1951

	Hospital insurance	Insurance for some physicians' services		
		Surgical only	Limited medical and surgical	Comprehensive
Total <sup>1</sup> .....	85, 443, 164	38, 248, 710	23, 552, 723	3, 596, 647
Insurance companies:				
Group .....	23, 995, 000	18, 430, 000	7, 946, 000	-----
Individual .....	17, 978, 000	10, 142, 000	3, 524, 000	-----
Blue Cross .....	38, 421, 056	330, 635	620, 053	-----
Blue Shield .....	541, 190	8, 679, 127	11, 123, 806	473, 867
Other plans <sup>2</sup> .....	4, 507, 918	666, 948	338, 864	3, 122, 780

<sup>1</sup> Adjusted for duplication by deducting 10 percent of the commercial insurance companies group hospital certificates and by deducting 16.66 percent of the commercial insurance companies individual policies for hospital, surgical, and limited medical insurance. Method of adjusting

for duplication is that devised by the Health Insurance Council—see table 11.2.

<sup>2</sup> Enrollment includes 1949 and 1951 data.

SOURCE: Table 11.5.

One can only estimate the number of people in the Nation with some form of health insurance. Although the number of policies in force is known, some persons are covered by more than one policy. A method for estimating the duplication in enrollment among various plans has been developed by the Health Insurance Council of the commercial insurance companies.

Constant turnover in enrollment makes an accurate count difficult. Some people believe that the duplication factor as developed by the Health Insurance Council and presented on the opposite page is too liberal and that total enrollment is actually somewhat higher. Others believe that this method underestimates the extent of duplication and that total enrollment is really less than indicated.

The degree of duplication may vary depending on the location of the community. Because of lack of other data, however, the factor used by the Health Insurance Council is arbitrarily applied to each of the 48 States in table 11.5.

Table 11.2.—Method of adjustment for duplication of enrollment in medical care insurance, by type of benefit, as applied to gross enrollments, December 1951

Insurance plan	Hospital insurance (thousands)		
	Gross enrollment	Duplication factor <sup>1</sup>	Estimated total number of persons
Total.....			85, 443
Insurance companies:			
Group.....	26, 663	— 10 percent or 2,666.....	23, 995
Individual.....	21, 574	— 16.66 percent or 3,596.....	17, 978
Blue Cross plans.....	38, 421		38, 421
Other plans.....	5, 049		5, 049
	Surgical insurance only (thousands)		
Total.....			38, 249
Insurance companies:			
Group.....	18, 430		18, 430
Individual.....	12, 165	— 16.66 or 2,027 <sup>2</sup> .....	10, 142
Blue Shield and affiliated Blue Cross plans.....	9, 010		9, 010
Other plans.....	667		667
	Surgical and limited medical insurance (thousands)		
Total.....			23, 553
Insurance companies:			
Group.....	7, 946		7, 946
Individual.....	4, 230	— 16.66 or 706.....	3, 524
Blue Shield and affiliated Blue Cross plans.....	11, 744		11, 744
Other plans.....	339		339

<sup>1</sup> The duplication factor developed by the Health Insurance Council provides for deduction of 10 percent of the persons covered by the group hospital insurance policies of the insurance companies and 16.6 percent of persons covered under individual policies issued by the insurance companies for hospital, surgical, and surgical with hospital medical insurance.

<sup>2</sup> The gross enrollment in individual surgical insurance minus the 16.66 percent allowance for duplication equals 10,138 rather than 10,142 as shown. See table 11.5, footnote 9.

SOURCE: Health Insurance Council (New York).



More people in urban, industrialized and wealthy States have some kind of medical care insurance than do the residents of rural or low-income areas. In 1951, the proportion of persons having hospital insurance in urban or high-income States was two-thirds higher than in rural or low-income States.

In cities people have easier access to group insurance at their place of employment whereas in rural areas people are more frequently self-employed and scattered. Furthermore, persons in rural areas generally have lower cash incomes and are less able to make premium payments.

The proportion of persons having hospital insurance is two-thirds higher in:

Urban .....



Rural.....



High income ...



Low income . . .



With some insurance

Without insurance

Source: See Table 11.5

In the March 1952 Current Population Survey, conducted by the Bureau of the Census, special questions were asked concerning all persons age 65 and over. The survey covered 25,000 households and was designed to provide a representative sample of all households in the United States. The special survey was undertaken to gather data on the pattern of hospital utilization by the aged and on the extent to which the aged have prepaid hospital care.

According to this study, 26 percent of the aged had hospitalization insurance. This may be compared with 57 percent of the whole population. Ownership of insurance was concentrated in the age group 65-69, suggesting that in groups with recent attachment to the labor force, insurance is more common. Insurance was nearly three times more prevalent among the white population than among the nonwhite population and twice as common among urban as among farm residents. Also, there were very marked differences in insurance ownership between those in and out of the labor force. For example, 45 percent of the men who were employed, but only 20 percent of those not in the labor force, reported having insurance.

Table 11.3.—The aged population and ownership of hospitalization insurance

[Noninstitutional population 65 and over, March 1952]

Population group	All persons			Persons with some insurance		
	Both sexes	Male	Female	Both sexes	Male	Female
Total (thousands) .....	12, 006	5, 620	6, 386	3, 158	1, 705	1, 453
	Percent			Percent of population group		
Total .....	100. 0	100. 0	100. 0	26. 3	30. 2	22. 8
65-69 .....	40. 1	41. 6	38. 8	36. 4	42. 3	30. 9
70-74 .....	27. 9	28. 0	27. 7	24. 8	28. 2	21. 7
75 and over .....	32. 0	30. 4	33. 5	15. 0	15. 8	14. 4
White .....	92. 0	93. 0	92. 5	27. 5	31. 4	24. 2
Nonwhite .....	7. 3	7. 0	7. 5	10. 5	15. 7	6. 3
Urban .....	63. 6	60. 6	66. 3	30. 4	35. 8	26. 0
Rural-nonfarm .....	21. 0	21. 7	20. 4	22. 4	25. 7	18. 4
Farm .....	15. 4	17. 7	13. 3	15. 2	16. 7	13. 5
In the labor force .....	23. 2	40. 9	7. 7	43. 9	44. 5	41. 2
Not in the labor force .....	76. 8	59. 1	92. 3	21. 0	20. 4	21. 3

SOURCE: I. S. Falk and Agnes W. Brewster. Hospitalization and Insurance among Aged Persons. A paper delivered before the Medical Care section of the American

Public Health Association at the annual meeting, Oct. 23, 1952.



The East North Central States (Illinois, Indiana, Michigan, Ohio, and Wisconsin) lead the country in the proportion of the population with some hospital insurance. More of their residents also have surgical insurance than do residents in any other section of the country. The New England and Central Atlantic States come close behind.

New England has a higher proportion of its population enrolled in surgical and limited medical insurance than any other part of the United States.

In the Far Western States, it is estimated that 107 persons per 1,000 population have comprehensive medical care insurance, the highest proportion of any region in the country. In general, the Southwestern and the Southeastern regions have the lowest proportions of their people covered by the various types of health insurance.

Table 11.4.—Estimated number of persons per 1,000 population having different types of medical care insurance, by region, December 1951

Region	Hospital insurance					Surgical insurance only					Surgical and limited medical insurance					Comprehensive
	Total	Insurance companies		Blue Cross plans	Other organizations	Total	Insurance companies		Blue Shield and affiliated Blue Cross plans	Other	Total	Insurance companies		Blue Shield and affiliated Blue Cross plans	Other	
		Group	Individual				Group	Individual				Group	Individual			
United States.....	566	159	119	253	33	254	122	67	60	4	156	53	23	78	2	24
New England.....	702	203	51	338	111	237	149	26	62	(1)	266	70	12	157	27	3
Central Atlantic.....	698	172	88	415	23	262	133	36	90	2	164	50	24	90	---	27
Southeast.....	316	114	71	114	17	176	98	37	40	(1)	70	23	14	33	---	12
Southwest.....	397	97	187	103	9	199	86	102	7	2	156	43	48	66	---	8
East North Central.....	749	237	176	319	17	409	189	108	97	15	172	69	21	82	1	6
West North Central.....	545	108	157	260	20	164	74	87	1	2	228	50	44	134	---	19
Rocky Mountain.....	388	71	92	199	26	125	54	49	21	---	170	30	23	115	2	25
Far West.....	500	149	137	101	113	234	78	104	48	4	144	92	15	34	5	107

<sup>1</sup> Less than 0.5 per 1,000.

SOURCES: Arthur Weissman. A Morbidity Study of the Permanente Health Plan Population. Medical Bulletin, p. 14, table 2 Permanente Foundation (Oakland, Calif., August 1952).

Bureau of the Census. 1950 Census of Population,

Series PC-7, No. 1 (Washington, D. C., Feb. 25, 1951).

Health Insurance Plan of Greater New York. Mimeographed memo of Neva R. Deardorff (New York City, N. Y., Dec. 30, 1950).

Bureau of the Census. Population Report P-A32 (Washington, D. C., July 1, 1951).

The following table shows the estimated enrollment, in each State, in all types of prepaid voluntary health plans. The basic State data, on which the table is based, were obtained from the Health Insurance Council, the Blue Cross Commission, the Blue Shield Commission, from the annual reports of member plans of the Cooperative Health Federation, and from the Social Security Administration study of independent plans. Where 1951 data were not available, the most recent year for which enrollment was known was substituted. In general, 1949 enrollment figures were used for the small independent plans and 1951 data for all other coverage.

A Nation-wide count of all persons having prepaid health services cannot be completely accurate and a State-by-State tabulation is less reliable. Even assuming that the duplication factor of the Health Insurance Council is appropriate for adjusting Nation-wide figures, it can not be assumed that the factor would be equally valid in a highly industrialized State and in a rural State. Moreover, many Blue Cross and Blue Shield plans and the large commercial insurance companies enroll across State lines. Although each of these plans may attempt to identify the enrollment in each State it is unlikely that records are current. With regard to the independent plans, all the membership is imputed to the city in which the headquarters is located; New York State, for example, includes all of the Health Insurance Plan of Greater New York's enrollment although some of the membership is known to live in New Jersey and Connecticut.

Despite the limitations of the State data, however, they serve the purpose of providing a rough measure of the variations in the proportion of the population covered. The regional data, although subject to some of the same qualifications, permit more valid comparisons.



Table 11.5.—Estimated number of persons having different types of medical care insurance, by region and by State, December 1951

State and Region	Hospital insurance				Surgical insurance only				Surgical and limited medical insurance				Compre- hensive <sup>1</sup>		
	Total <sup>1</sup>	Insurance companies		Other organiza- tions <sup>2</sup>	Total <sup>1</sup>	Insurance companies		Blue Shield and affil- iated Blue Cross Plans <sup>3</sup>	Other <sup>4</sup>	Total <sup>1</sup>	Insurance companies			Blue Shield and affil- iated Blue Cross Plans <sup>5</sup>	Other <sup>6</sup>
		Group	Individ- ual			Group	Individ- ual				Group	Individ- ual			
United States.....	35,443,164	23,995,000	17,978,000	38,421,056	5,049,108	38,248,710	18,430,000	10,142,000	9,009,762	666,948	23,552,723	7,946,000	338,864	3,596,647	
New England.....	6,498,467	1,875,000	472,000	3,123,536	1,027,193	2,180,424	1,378,000	240,000	571,040	384	2,459,677	651,000	1,448,988	30,974	
Central Atlantic.....	25,009,053	6,168,000	3,143,000	14,863,951	3,834,102	9,372,812	4,797,000	1,303,000	3,228,187	64,625	5,860,166	1,795,000	3,217,166	976,299	
Southeast.....	9,928,373	3,586,000	2,235,000	3,581,913	525,460	5,540,000	3,092,000	1,177,000	1,259,840	11,160	2,213,401	726,000	1,032,401	386,153	
Southwest.....	4,540,981	1,108,000	2,146,000	1,802,808	104,173	2,276,079	990,000	1,173,000	85,272	27,807	1,789,267	491,000	754,267	88,214	
East North Central.....	23,055,906	9,390,000	5,430,000	1,809,332	522,574	12,591,388	5,825,000	3,319,000	2,974,609	472,779	5,293,823	2,127,000	2,510,367	180,400	
West North Central.....	7,697,532	1,241,000	2,220,000	3,678,416	277,788	2,316,234	1,389,000	1,227,000	18,820	31,414	3,217,449	705,000	1,886,449	266,518	
Rocky Mountain.....	1,355,932	327,000	322,000	6,694,767	92,516	2,316,234	1,389,000	1,227,000	18,820	31,414	3,217,449	705,000	1,886,449	266,518	
Far West.....	7,356,897	2,196,000	2,010,000	1,486,333	3,438,491	1,140,000	1,531,000	1,531,000	708,712	58,779	2,124,420	1,347,000	403,138	1,579,431	
New England:															
Connecticut.....	1,693,041	573,000	123,000	997,041	997,041	938,752	404,000	76,000	459,752	216,000	200,000	13,000	286,431	41	
Maine.....	446,794	101,000	66,000	279,794	174,013	174,013	98,000	38,000	38,013	42,000	29,000	16,000	286,431	30,506	
Massachusetts.....	3,211,669	993,000	218,000	30,506	30,506	820,000	721,000	99,000	73,275	227,557	58,000	7,000	162,557	427	
New Hampshire.....	398,458	100,000	22,000	1,970,163	1,970,163	113,275	31,000	9,000	73,275	303,689	54,000	4,000	245,689		
Rhode Island.....	97,121	39,000	28,000	597,121	597,121	74,000	67,000	11,000	(8)	384	15,000	6,000	162,557		
Vermont.....	61,384	69,000	25,000	(8)	384	68,384	57,000	11,000	(8)						
Central Atlantic:															
Delaware.....	214,111	14,000	21,000	179,111	16,314	429,891	8,000	13,000	318,891	175,504	9,000	3,000	163,504		
District of Columbia.....	712,812	105,000	87,000	504,498	16,314	429,891	308,000	114,000	102,641	46,000	23,000	23,000	55,741	17,869	
Maryland.....	1,351,340	356,000	159,000	835,100	1,240	524,641	608,000	114,000	102,641	249	1,127,906	363,000	669,906	1,780	
New Jersey.....	2,906,242	896,000	354,000	1,606,228	50,014	792,249	600,000	192,000	249	249	1,127,906	363,000	669,906	1,780	
New York.....	10,691,340	2,485,000	929,000	6,829,841	447,469	4,221,972	1,618,000	426,000	2,130,996	46,796	3,375,057	905,000	1,156,057	872,419	
Pennsylvania.....	8,134,791	1,813,000	1,307,000	2,933,740	263,740	4,821,059	1,786,000	342,000	675,659	17,400	1,627,617	380,000	951,617	66,703	
West Virginia.....	998,417	419,000	286,000	4,641,051	255,295	2,562,000	392,000	170,000	675,659	17,400	3,360,341	296,000	220,341	15,835	
Southeast:															
Alabama.....	848,590	223,000	70,000	428,610	126,980	319,605	219,000	21,000	79,605	345,071	36,000	25,000	284,071	126,980	
Arkansas.....	367,214	116,000	109,000	87,523	168,547	168,547	98,000	(8)	70,547	89,539	29,000	37,000	3,859	34,460	
Florida.....	754,608	267,000	192,000	278,990	16,618	293,000	212,000	81,000	70,547	333,689	68,000	49,000	216,689	16,618	
Georgia.....	1,117,262	354,000	321,000	178,075	54,187	698,155	242,000	181,000	3,479	676	148,228	48,000	8,228	6,526	
Kentucky.....	904,466	251,000	254,000	346,304	53,162	461,518	240,000	181,000	38,518	139,555	48,000	33,000	78,555	2,462	
Louisiana.....	810,790	289,000	214,000	267,499	40,291	379,000	229,000	150,000	140,299	262,371	74,000	24,000	164,371	38,000	
Mississippi.....	331,545	85,000	68,000	142,729	35,816	247,289	79,000	28,000	140,299	24,000	24,000	11,000	164,371	28,000	
North Carolina.....	1,484,173	587,000	190,000	654,508	52,665	1,271,009	555,000	90,000	618,301	7,708	126,000	76,000	44,999	44,999	
South Carolina.....	508,285	254,000	122,000	130,985	1,276	873,903	62,000	62,000	130,985	276	72,000	39,000	1,300	1,300	
South Dakota.....	1,185,018	358,000	130,000	516,742	1,276	673,743	463,000	60,000	130,985	276	129,000	34,000	1,300	1,300	
Tennessee.....	1,616,422	412,000	565,000	549,942	89,450	700,064	271,000	300,000	126,564	2,500	532,928	175,000	276,928	86,980	
Virginia.....															
Southwest:															
Arizona.....	241,016	29,000	46,000	128,609	37,407	161,779	26,000	23,000	85,272	27,507	17,000	6,000	284,071	9,900	
New Mexico.....	116,538	37,000	53,000	66,538	91,700	32,000	28,000	28,000			32,000	21,000	3,859	34,460	
Oklahoma.....	925,146	168,000	371,000	383,679	2,467	316,000	112,000	204,000			438,515	81,000	266,515	4,488	
Texas.....	3,295,281	874,000	1,676,000	643,982	64,269	1,707,300	789,000	918,000		300	1,291,752	380,000	437,752	69,826	
East North Central:															
Illinois.....	6,749,789	2,315,000	2,095,000	2,155,912	183,877	3,827,796	2,073,000	1,120,000	98,809	35,987	1,189,179	450,000	549,179	81,248	
Indiana.....	2,215,134	946,000	427,000	827,834	14,300	1,434,128	716,000	306,000	443,428	18,700	625,469	298,000	286,469	4,400	
Michigan.....	5,086,193	1,304,000	1,228,000	2,549,276	4,917	2,954,295	756,000	851,000	1,342,379	4,917	1,983,977	757,000	1,036,977	1,036,977	
Ohio.....	6,709,338	2,083,000	1,625,000	3,460,960	239,388	3,704,852	1,706,000	513,000	1,072,407	413,175	1,931,497	449,000	185,038	6,485	
Wisconsin.....	2,295,432	670,000	754,000	815,360	80,082	1,120,586	574,000	529,000	17,586	758,701	173,000	33,000	552,701	88,173	
West North Central:															
Iowa.....	1,343,033	270,000	450,000	623,033	547,820	295,000	234,000	234,000	18,820		448,277	53,000	294,277	6,000	
Kansas.....	800,224	237,000	162,000	397,224	4,006	295,000	191,000	104,000			362,885	73,000	264,885	4,000	
Minnesota.....	1,840,281	316,000	333,000	1,020,354	170,927	347,259	122,000	197,000		28,259	1,088,257	288,000	524,257	147,049	
Missouri.....	2,788,412	497,000	820,000	1,368,551	102,861	689,155	281,000	405,000		3,155	996,386	240,000	600,386	109,469	
Nebraska.....	577,222	122,000	255,000	200,222	277,000	104,000	104,000	173,000			230,923	22,000	168,923		
North Dakota.....	221,383	54,000	98,000	69,383	74,000	29,000	29,000	45,000			69,721	20,000	38,721		
South Dakota.....	221,383	54,000	98,000	69,383	74,000	29,000	29,000	45,000			69,721	20,000	38,721		
Rocky Mountain:															
Colorado.....	612,153	60,000	95,000	405,410	51,743	91,950	28,000	46,000	17,950		336,272	40,000	271,857	50,292	
Idaho.....	198,595	35,000	84,000	50,279	29,316	86,000	27,000	59,000			31,019	12,000	4,019	25,297	
Montana.....	224,606	34,000	83,000	102,106	5,500	74,000	23,000	51,000			122,376	15,000	92,376	147,049	
Utah.....	223,520	99,000	40,000	78,563	5,957	166,815	102,000	8,000			48,000	25,000	23,000	7,563	
Wyoming.....	97,058	19,000	20,000	58,058	17,000	17,000	9,000	8,000			56,553	12,000	36,553		



Table 11.5.—Estimated number of persons having different types of medical care insurance, by region and by State, December 1951—Con.

State and Region	Hospital insurance				Surgical insurance only				Surgical and limited medical insurance				Comprehensive <sup>7</sup>		
	Total <sup>1</sup>	Insurance companies		Other organizations <sup>2</sup>	Total <sup>1</sup>	Insurance companies		Blue Shield and affiliated Blue Cross plans <sup>3</sup>	Other <sup>4</sup>	Total <sup>1</sup>	Insurance companies			Blue Shield and affiliated Blue Cross Plans <sup>5</sup>	Other <sup>6</sup>
		Group	Individual			Group	Individual				Group	Individual			
Far West:															
California.....	5,253,181	1,843,000	1,137,000	992,154	2,618,313	943,000	909,000	707,844	58,469	1,676,761	86,000	349,067	62,694	754,503	
Nevada.....	41,588	13,000	23,000	5,588	19,000	7,000	12,000	-----	-----	15,588	5,000	-----	5,588	-----	
Oregon.....	700,234	111,000	208,000	280,355	191,868	51,000	140,000	868	-----	180,987	62,000	78,987	-----	281,459	
Washington.....	1,361,894	229,000	642,000	113,867	609,310	139,000	470,000	-----	310	251,084	101,000	65,054	-----	543,464	

<sup>1</sup> Adjusted for duplication by deducting 10 percent of the insurance companies group hospital expense certificates and by deducting 16.66 percent of the insurance companies individual policies for hospital, surgical, and limited medical insurance. Enrollment in 9 medical-society approved plans which are underwritten by insurance companies is included only under insurance companies.

<sup>2</sup> Includes 1949 enrollment in 207 nonaffiliated plans and 1951 enrollment for Connecticut Hospital Service, Inc.; North Idaho District Medical Service Bureau, Inc.; Southeast Idaho Medical Bureau, Inc.; Nevada State Medical Association Program; Washington Physicians Service, Oregon Physicians Service (5 plans); California Physicians Service; and Interoceanic Insurance Association (Calif.).

<sup>3</sup> Includes all enrollment of 3 Blue Shield Plans (Physicians Service Association Inc. of Savannah; Medical-Surgical Service of Illinois; and Associated Hospital Service of Maine) for which information on type of benefits (Surgical only or Surgical with limited medical) was not available. Includes 88,508 enrollment in Harrisburg, Pennsylvania plan which is not in State distribution; this enrollment represents out-of-State contracts held by the Harrisburg plan which will eventually be transferred.

<sup>4</sup> Includes 1949 enrollment for 33 nonaffiliated plans offering limited surgical insurance and 1951 enrollment for Medical Mutual of Cleveland, Inc., and Interoceanic Insurance Association (California).

<sup>5</sup> Excludes enrollment in 7 Blue Shield plans offering comprehensive medical care—see footnote 7.

<sup>6</sup> Includes enrollment in Rhode Island Medical Society Physicians Service, Medical Mutual of Cleveland, Inc.; Southeast Idaho Medical Bureau, Inc.; Medical-Surgical Service Plan of Hospital Service, Inc., (Colorado); Nevada State Medical Association Program; and Interoceanic Insurance Association (California).

<sup>7</sup> Includes 1949 enrollment for 175 plans. Includes 1951 enrollment for 11 plans: Health Insurance Plan of Greater New York; United Medical Service, Inc., N.Y.C. (Blue Shield); North Idaho District Medical Service Bureau, Inc.; Washington Physicians Service, Oregon Physicians Service (3 Blue Shield Plans); California Physicians Service (Blue Shield), and Ross-Loos Medical Group, Los Angeles, Calif.

<sup>8</sup> Enrollment enrollment is included in New Hampshire.  
<sup>9</sup> Medical and Surgical enrollment as reported as 6,000 greater (after adjustment for duplications) than "Surgical only" enrollment. In this table Alaska "Surgical only" enrollment was considered as "Surgical only" enrollment. In total surgical enrollment of 6,000 greater than the Health Insurance Council (adjusted duplication) total for surgical enrollment.

<sup>10</sup> South Dakota enrollment is included in Iowa.  
<sup>11</sup> Excludes an estimated 155,500 public assistance recipients.

Sources: The Health Insurance Council. Accident and Health Insurance Coverage in the United States (New York City, June 1952) and unpublished data.

Blue Cross Commission. Membership of Blue Cross Plans as of December 31, 1951. Mimeographed (Chicago, Ill.).

Blue Shield Commission. Blue Shield Enrollment, December 31, 1951. Mimeographed release of Blue Shield Medical Care Plans (Chicago, Ill.).

Agnes W. Brewster. Independent Plans Providing Medical Care and Hospitalization Insurance in 1949 in the United States, 1950, Survey pp. 18, 19, 36. Social Security Administration (Washington, D. C., 1952).

American Medical Association. Voluntary Prepayment Medical Care Plans. (Chicago, Ill. 1952.)

Cooperative Health Federation of America. Annual reports. (Chicago, Ill.)

The enrollment in all types of prepayment plans has grown rapidly since 1939. Although the enrollment shown in the following table and charts does not include members in independent plans, the enrollment in these excluded plans has accounted for only about 5 percent of all persons having hospital or limited medical insurance. The enrollment shown is not adjusted to exclude duplication and the figures are not additive.

Since 1939, the number of Blue Cross members has increased from 34 per 1,000 persons in the United States to 253. The commercial insurance companies' hospital policies which covered only 10 persons per 1,000 in 1936, by 1951 covered nearly 180 under a group policy and an additional 140 under individual policies. Whereas Blue Cross coverage grew faster than insurance company hospital coverage up until the late 1940's, during the most recent years the rate of growth in insurance company hospital coverage has exceeded that in Blue Cross.

Surgical and medical insurance was held by fewer than 6 persons per 1,000 in 1939. All types of medical insurance carriers have shown a fairly rapid and consistent rate of growth. At the end of 1951, 175 per 1,000 persons had surgical or limited medical insurance under insurance company group policies, 109 per 1,000 were insured under individual insurance company policies and an additional 145 per 1,000 were insured by Blue Shield.

Table 11.6.—Estimated enrollment and enrollment per 1,000 population in specified medical care insurance plans, 1939-51

[Enrollment in Thousands]

	Hospital insurance			Surgical and/or limited medical insurance		
	Insurance companies		Blue Cross plans	Insurance companies		Blue Shield and other nonmember plans <sup>1</sup>
	Group policies	Individual policies		Group policies	Individual policies	
Total enrollment <sup>2</sup> at end of:						
1939.....	1,260	( <sup>3</sup> )	4,410	630	( <sup>3</sup> )	167
1940.....	2,500	1,200	6,012	1,430	850	370
1941.....	3,850	1,500	8,399	2,300	1,000	775
1942.....	5,080	1,800	10,215	3,275	1,200	965
1943.....	6,800	2,100	12,600	4,700	1,400	1,235
1944.....	8,400	2,400	15,772	5,625	1,600	1,768
1945.....	7,804	2,700	18,881	5,537	1,800	2,535
1946.....	11,315	3,000	24,250	8,661	2,000	4,436
1947.....	14,190	7,584	27,489	11,103	4,875	6,966
1948.....	16,741	11,286	30,448	14,199	6,944	9,855
1949.....	17,697	14,729	33,381	15,590	9,315	13,463
1950.....	22,305	17,682	37,435	21,219	14,104	18,097
1951.....	26,663	21,574	<sup>4</sup> 38,421	26,376	16,395	21,852
Total enrollment per 1,000 civilian population <sup>2 5</sup> at end of:						
1939.....	10	-----	34	5	-----	1
1940.....	19	9	46	11	6	3
1941.....	29	11	64	17	8	6
1942.....	39	14	78	25	9	7
1943.....	53	16	99	37	11	10
1944.....	66	19	125	44	13	14
1945.....	61	21	148	43	14	20
1946.....	82	22	175	63	14	32
1947.....	100	53	194	78	34	49
1948.....	115	78	210	98	48	68
1949.....	120	100	226	106	63	91
1950.....	149	118	249	141	94	120
1951.....	176	143	253	175	109	145

<sup>1</sup> Includes eight other plans in 1951 approved by medical societies or affiliated with Blue Cross.

<sup>2</sup> Not adjusted for duplication.

<sup>3</sup> Data not available.

<sup>4</sup> Excludes 3 plans (with 1950 enrollment of 1,121,000 which were not approved in 1951).

<sup>5</sup> July 1 civilian population except for 1939, which is total population.

SOURCES: Health Insurance Council. Hospital, Surgical and Medical Expense Coverage in the United States, 1940-50. Unpublished memorandum. (Chicago, Ill., Sept. 6, 1951).

U. S. Senate. Report of the Committee on Labor and Public Welfare, No. 359, pt. I, p. 26 (Washington, D. C. 1951).

Blue Cross Commission. Membership of Blue Cross Plans as of Dec. 31, 1950. Mimeographed. (Chicago, Ill.).

Blue Cross Commission. Membership of Blue Cross Plans as of Dec. 31, 1951. Mimeographed. (Chicago, Ill.).

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Blue Shield Commission. Blue Shield Enrollment, Dec. 31, 1951. Mimeographed. (Chicago, Ill.).

American Medical Association. Voluntary Prepayment Medical Care Plans (Chicago, Ill., 1952).

Bureau of the Census. Current Population Reports, Series P. 25, No. 47 (Washington, D. C., Mar. 9, 1951).

Bureau of the Census. Estimates of the Total and Civilian Population of Regions, Divisions and States: July 1, 1951 and 1950 (Washington, D. C.).



Chart 11C.—Rate of growth of total enrollment in specified hospital insurance plans in the United States, 1939-51.

Number of persons  
per 1000 civilian  
population

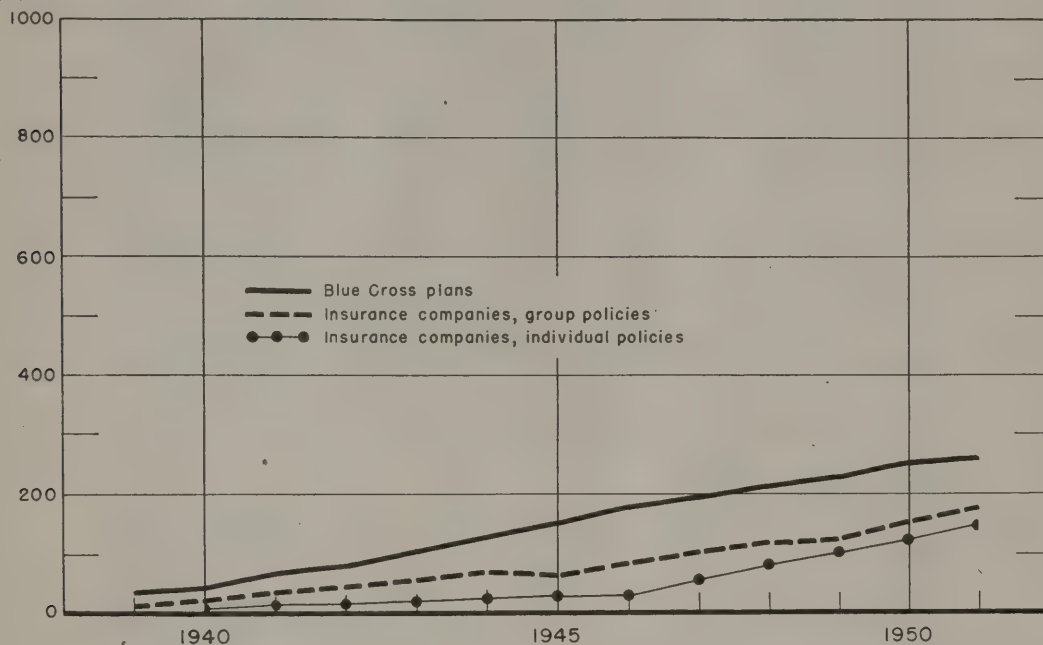
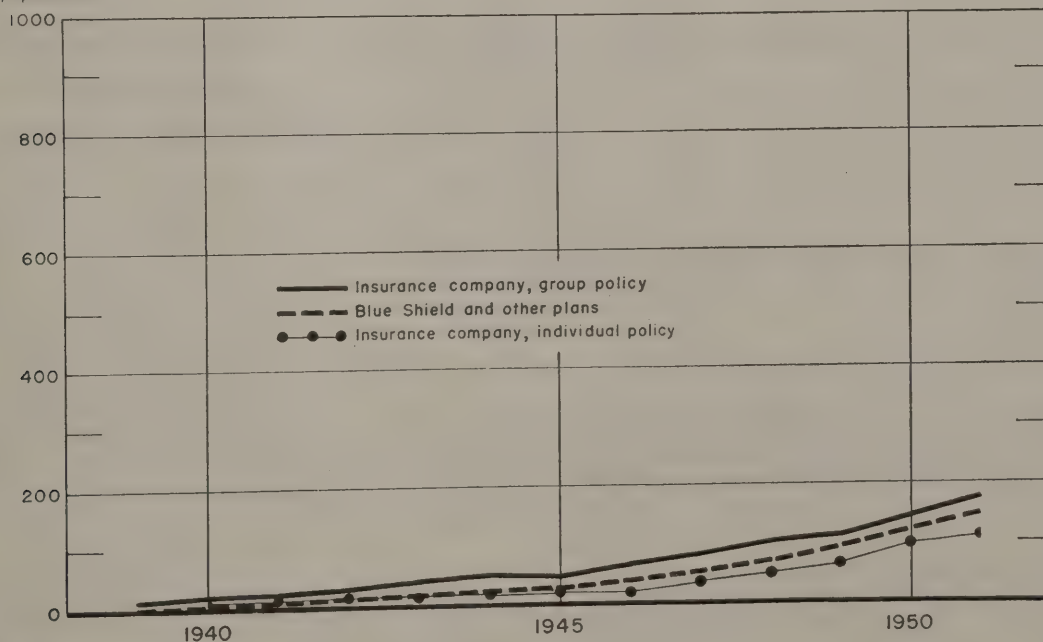


Chart 11D.—Rate of growth of total enrollment in specified surgical and/or limited medical plans in the United States, 1939-51.

Number of persons  
per 1000 civilian  
population



In a study conducted in Michigan during 1948, persons in approximately 1,110 households (representative of the whole State except for the Detroit area) were interviewed regarding the extent of family coverage in prepayment plans. Exclusion of the Detroit area, where the proportion of persons with prepaid medical care is relatively high, limits the conclusions to be drawn from the State-wide data. (The percent of persons covered for hospitalization in the whole State was found to be about 80—table 11.5—compared with the 60 percent of families having at least one member covered according to this study.) The extent of insurance coverage found in rural as compared with urban areas is, however, significant. Urban residents, even after exclusion of Detroit, were more frequently enrolled in all types of prepayment plans than were rural residents; prepayment for medical services was used by about 50 percent more of the population in urban than in rural communities.

The study also gathered information on the proportion of families in which all family members were protected against medical bills. Although nearly 60 percent of all families had hospital insurance for at least one family member, only 34 percent of the families had all members of the family covered.

**Table 11.7.—Percentage of all families participating in prepayment medical care plans, by type of area and extent of family coverage, Michigan, 1948**

Type of prepayment	Percent of families with specified type of insurance				Percentage of families in which all eligible members covered by prepayment plan
	All areas	Rural	Metro-politan	Urban	
All families.....	100.0	100.0	100.0	100.0	100.0
Hospitalization.....	59.3	48.4	62.7	69.9	34.1
Surgical insurance.....	51.2	42.3	57.8	58.4	29.2
Medical insurance, other than surgical.....	25.2	20.1	24.5	31.1	12.6

SOURCE: Charles R. Hoffer, Duane L. Gibson, Charles D. Loomis, Paul A. Miller, Edgar A. Schuler, and John F. Thaden. Health Needs and Health Care in Michigan.

Michigan State College Agriculture Experiment Station, Special Bulletin 365, pp. 55-57 (Lansing, Mich., June 1950).

In 1948 about 8 percent of all consumer expenditures for medical care were paid from insurance benefits. (In some cases the benefits represented direct payment by the insurance carrier to the hospital or physician and in other cases a cash payment to the person insured which he applied toward his medical bills.) Less than 7 percent of physicians' bills were paid from insurance and 22 percent of all hospital bills. The proportion of medical bills met through prepayment has increased every year since 1948; the largest increase occurred between 1950 and 1951. By 1951, insurance benefits met 15 percent of the total medical bill; the percent of hospital charges paid by insurance benefits had increased to 35 percent and the proportion of physicians' bills covered by insurance was two and one-half times the 1948 level.

Some people do not believe that insurance should cover the entire cost of drugs and appliances. If private expenditures for the services of physicians, dentists, hospitals, nurses, the net cost of health insurance plus one-third of expenditures for drugs and appliances are added together and the total considered "potentially insurable," we find that in 1951 insurance met about one-fifth of the so-called potentially insurable medical care costs.

**Table 11.8.—Private expenditures for medical care and insurance benefits through all voluntary insurance carriers, 1948-51**

Item of medical expenditure	Millions of dollars								Percentage of medical care costs met by insurance			
	<sup>1</sup> 1948		1949		1950		<sup>2</sup> 1951		<sup>1</sup> 1948	1949	1950	<sup>2</sup> 1951
	Med- ical care ex- pend- itures	Volun- tary insur- ance bene- fits	Med- ical care ex- pend- itures	Volun- tary insur- ance bene- fits	Med- ical care ex- pend- itures	Volun- tary insur- ance bene- fits	Med- ical care ex- pend- itures	Volun- tary insur- ance bene- fits				
Total.....	7,422	605	7,627	766	8,246	992	8,880	1,349	8.2	10.0	12.0	15.2
Physicians services only.....	2,209	<sup>3</sup> 151	2,378	228	2,523	312	2,687	458	<sup>4</sup> 6.8	<sup>4</sup> 9.6	<sup>4</sup> 12.4	<sup>4</sup> 17.0
Hospital services only.....	2,066	<sup>3</sup> 454	2,026	539	2,310	680	2,532	891	<sup>5</sup> 22.0	<sup>5</sup> 26.6	<sup>5</sup> 29.4	<sup>5</sup> 35.2
Expenditures for services of physicians, hospitals, den- tists and nurses, plus ½ of expenditures for drugs and appliances plus net cost of medical care insurance.....	5,941	605	6,141	766	6,660	992	7,146	1,349	10.2	12.5	15.0	18.9

<sup>1</sup> Methodology used in arriving at figures for 1948 does not conform in all respects to that used in arriving at total expenditures and insurance benefit figures developed here for the 1949, 1950, and 1951 figures.

<sup>2</sup> Preliminary figures.

<sup>3</sup> Assumes that 75 percent of the total benefit paid for both hospitalization and medical care was for hospitalization.

<sup>4</sup> Slight overstatement because total benefit payments include some payments for services other than those received from physicians (nurses, dentists, laboratories, etc.).

<sup>5</sup> Slight overstatement because total benefit payments include some payments for services other than those received from hospital (X-ray services, emergency accident services, etc.).

SOURCE: Social Security Administration. Voluntary Insurance Against Sickness: 1950 Estimates. Social Security Bulletin, vol. 14, No. 11, p. 23 (Washington, D. C., December 1951).



A study of all private patients admitted to 13 general and allied special hospitals in the District of Columbia, during a 2-week period in December 1949 and January 1950, provided information on the extent to which prepayment for medical and hospital care helps to meet the cost of illness. The sample was not typical of the metropolitan population since it included only private patients. Of the 1,796 patients studied, 67 percent had family income below \$5,000 compared with 72 percent of all families in the metropolitan area in this income group.

Those patients who were entitled to benefits from Group Hospitalization, Inc. (a Blue Cross plan) had 86 percent of their hospital bill prepaid through the plan, but they had to meet 60 percent of the total bill for physicians' and hospital services. The proportion met by group hospitalization would have been somewhat greater except for the private accommodations and other services sought by numerous patients.

For patients who had hospital protection through Blue Cross and insurance against physicians' charges in the hospital through the Blue Shield plan, 74 percent of their total bill for this particular hospitalized illness was covered. Insurance benefits covered 91 percent of the hospital bill and 61 percent of the physicians' bill. The Blue Shield plan in the area provides physicians' services in the hospital only, whereas the physicians' charges include services rendered outside the hospital as well.

It should be noted that this information was for one episode of hospitalized illness only. It included only those patients who were eligible for benefits; patients who were members of prepayment plans but ineligible for benefits for this particular illness are not included in the data given in this table and chart.

Patients who had policies providing cash benefits (primarily with commercial insurance companies) had to pay two-thirds of their bill themselves, with about one-third being covered by their insurance policies.

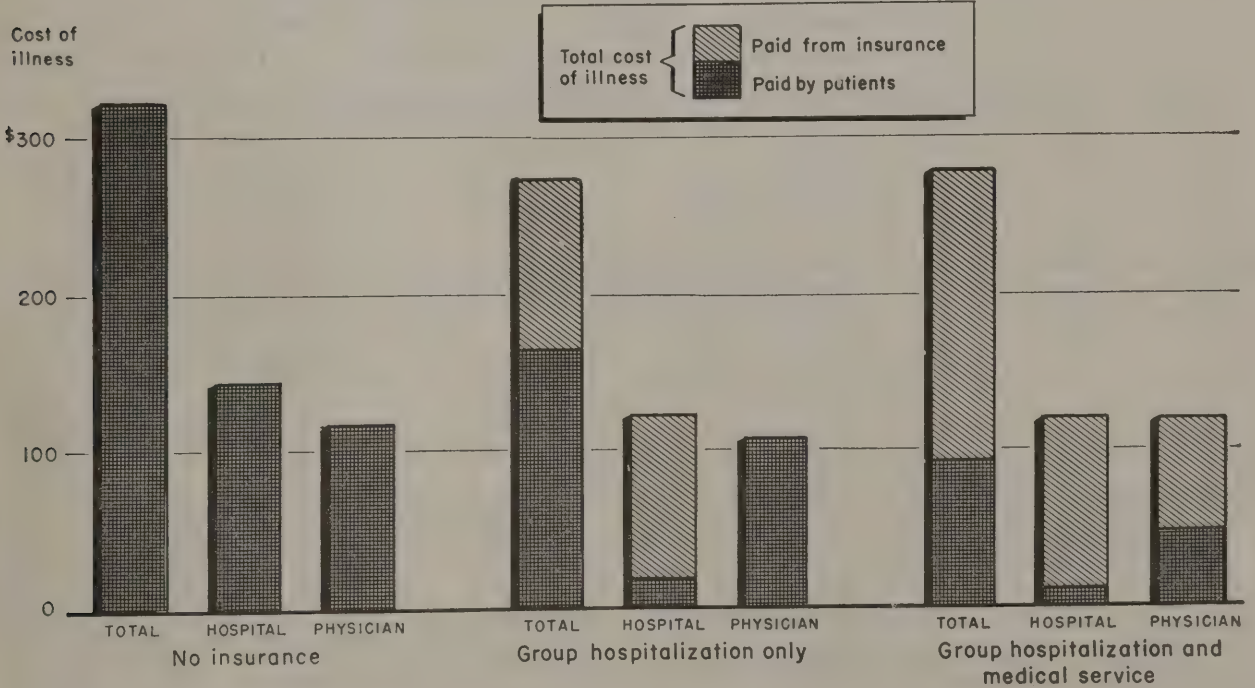
Table 11.9.—Cost to patient of hospital and physicians' charges under various forms of insurance, 1949–50

Type of insurance	Total cost of illness	Hospital charges <sup>1</sup>	Physician charges <sup>2</sup>
Group hospitalization <sup>3</sup>	\$273. 60	\$124. 30	\$106. 40
Cost to patient	\$164. 10	\$16. 90	\$106. 40
Percentage of total	60. 0	13. 6	100. 0
Group hospitalization and medical service <sup>3</sup>	\$279. 60	\$120. 80	\$118. 30
Cost to patient	\$72. 70	\$10. 70	\$45. 90
Percentage of total	26. 0	8. 9	38. 8
Cash benefits	\$271. 20	\$121. 40	\$115. 60
Cost to patient	\$171. 30		
Percentage of total	63. 2		
No insurance	\$321. 00	\$144. 20	\$116. 70

<sup>1</sup> Exclusive of pathology.  
<sup>2</sup> Exclusive of pathology, anesthesia, radiology, physical therapy and electrocardiography.  
<sup>3</sup> Includes only patients who were eligible for benefits.

SOURCE: Theodore Wiprud and Isidore Altman. Costs of Hospitalized Acute Illness. Journal of the American Medical Association, vol. 144, pp. 835-839, table 9 (Chicago, Ill., Nov. 4, 1950).

Chart 11E.—Costs of an acute hospitalized illness to insured patients in Washington, D. C., and the percent of the costs met through prepayment, 1949–50.



Source: See Table 11.9

Data derived from a study of medical care expenditures of 455 moderate-income families in the San Francisco Bay area indicate that members of a prepayment plan receive medical care somewhat more frequently than persons who have no insurance against medical bills. In view of the size of the sample (1,504 persons) the small differences found may not be significant, but 65 percent of all surveyed persons who were members of a prepayment plan received some medical care as compared with 59 percent of persons who were not members.

Of all the persons who received medical care and who had some insurance against medical bills, only one-fourth received any service or cash benefits through the prepayment plan. The most important reason for this is that the scope of benefits under prepayment plans is frequently limited to hospitalized illnesses. There are also other important limitations on scope of coverage such as the requirement for self-payment for the first and second office or home visits in any episode of illness and the exclusion of conditions existing at the time of enrollment. Further, members, as defined in this study, included persons who were members at any time during the year but not necessarily at the time of illness.

Table 11.10.—Percentage of persons ill and receiving some medical care, nonmembers and members of prepaid medical plans, San Francisco Bay Area, 1947-48

	Total	Not ill or ill with no medical care	Ill and receiving care		
			Total	Through prepayment	Not through prepayment
Non-members-----	100. 0	41. 3	58. 7	-----	58. 7
Members: <sup>1</sup>					
All members-----	100. 0	34. 9	65. 1	<sup>2</sup> 17. 5	47. 6
Members ill and receiving medical care-----	-----	-----	100. 0	26. 9	73. 1

<sup>1</sup> Members at any time during year, not necessarily at date of illness.

<sup>2</sup> Persons receiving some prepaid medical care, but not necessarily for all illnesses or all medical care for any one illness.

SOURCE: Emily H. Huntington. Cost of Medical Care: The Expenditures for Medical Care of 455 Families in the San Francisco Bay Area, 1947-48. Berkeley and Los Angeles: University of California Press, 1951. Modified from table 27, p. 72.



According to the same study some members of prepayment plans in the San Francisco Bay area did not receive any service or cash benefits from their medical care insurance plans even though they were ill.

Of all the members, 35 percent were not ill or did not seek medical care. Twenty-nine percent of the members were ineligible for help because they did not have hospitalized illnesses. Various other reasons accounted for the remainder who were ill and received care but not from their prepayment plan. Some (2 percent) received public medical care through, for example, the Veterans Administration. Less than 5 percent were eligible but did not avail themselves of the benefits.

**Table 11.11.—Percentage of members of prepayment medical care plans, by receipt, nonreceipt, and reasons for nonreceipt of medical care through prepayment, San Francisco Bay Area, 1947-48**

Members of plans and reasons for nonreceipt of prepaid medical care	Percent of all members	Members of plans and reasons for nonreceipt of prepaid medical care	Percent of all members
Total <sup>1</sup> -----	100.0	All illnesses ineligible: <sup>2</sup>	
Received prepaid medical care for at least one illness-----	17.5	Not hospitalized-----	28.8
Not ill or ill with no medical care-----	34.9	Other reasons <sup>3</sup> -----	5.6
No prepaid medical care for any illness-----	47.6	All medical care through free agencies, etc. <sup>4</sup> -----	2.4
		No medical care except drugs-----	2.0
		Eligible if a member when ill <sup>1</sup> -----	4.6
		Eligible but did not use prepayment-----	4.2

<sup>1</sup> Not necessarily a member of prepayment plan at date of illness.

<sup>2</sup> Women with a child born during the year, who also reported other illnesses, are classified according to the reasons for ineligibility of the other illness. Those with no other illness who were ineligible for maternity benefits are included under "other reasons."

<sup>3</sup> Plan did not cover first two visits, refractions, or various other conditions, or case was not eligible for maternity benefits, or informant reported that illness occurred when

the person was not a member of prepayment plan, or that illness was ineligible for nonspecified reason.

<sup>4</sup> All medical care, or all except minor expenditures, provided by workmen's compensation, the Veterans' Administration, school clinics, part-pay clinics, etc.

SOURCE: Emily H. Huntington. Cost of Medical Care: The Expenditures for Medical Care of 455 Families in the San Francisco Bay Area, 1947-48, p. 74, table 28 (Berkeley, Calif., 1951).

Benefits offered by the various prepayment plans differ not only in the extent of hospital or medical services to which the subscriber is entitled, but also in the type of benefit provided.

Benefits may be either cash indemnity, service or a combination of indemnity and service. Cash indemnity benefits provide for a money payment to the insured, corresponding to a fee schedule set forth in the prepayment plan contract. The cash indemnity benefit usually does not fully meet the cost of the service for which the individual was insured. Practically all of the medical care insurance policies of commercial carriers in force in 1950 provided cash indemnity benefits.

Under service benefits, the individual is provided with the hospital, surgical or medical services for which he is insured and the prepayment plan pays the institution or individual rendering the service. These plans undertake to cover the full cost of the specified insured services without any (or a very nominal) charge at the time service is needed. About 68 percent of Blue Cross members have contracts providing service benefits for room accommodations. Most of the members (about 87 percent) of the independent plans providing comprehensive hospital and medical care also receive service benefits. In many cases, these benefits are provided in conjunction with a group practice system and in facilities of the plan itself.

In some plans offering surgical and medical benefits, only the members with incomes below a specified amount are entitled to receive, without any additional charge, the service for which they are insured. For members whose incomes are above the specified amount, cash indemnity payments, according to the contract fee schedule, are made and physicians may charge the insured an additional amount. About 66 percent of Blue Shield members are enrolled in plans providing such combination benefits.

Table 11.12.—Number and percent of enrollment in medical care insurance plans having cash indemnity, service, and combination benefits by type of insurance organization, 1951

Insurance Organization	Type of benefit			
	All types Number <sup>1</sup> (thousands)	Percent		
		Cash indemnity	Service	Combination
Insurance companies:				
Group insurance:				
Hospital.....	26, 663	100. 0	-----	-----
Surgical and/or medical.....	26, 376	98. 1	-----	1. 9
Individual insurance:				
Hospital.....	21, 574	100. 0	-----	-----
Surgical and/or medical.....	16, 395	99. 4	-----	. 6
Blue Cross.....	38, 421	19. 0	<sup>2</sup> 67. 8	<sup>3</sup> 13. 2
Blue Shield and other <sup>4</sup> .....	22, 433	31. 2	2. 9	65. 9
Independent Comprehensive <sup>5</sup> .....	2, 495	13. 4	86. 6	-----

<sup>1</sup> Total gross enrollment not adjusted for duplication.

<sup>2</sup> Includes 6 plans with an enrollment of 4,322,000, which offer alternative contracts, one of which requires a per diem payment (usually \$1 or \$2) by hospitalized member.

<sup>3</sup> Plans offering certificates for either cash indemnity or service benefits. The distribution of members having each type is not known.

<sup>4</sup> Excludes 3 plans, with an enrollment of 58,527 for which information on type of benefit was not available.

<sup>5</sup> 1949 data.

SOURCES: Blue Cross Commission. Membership of Blue Cross Plans as of Dec. 31, 1951 (Chicago, Ill.).

Blue Cross Commission. Blue Cross Guide. (Chicago, Ill., January 1951.)

Blue Shield Commission. Blue Shield Enrollment, Dec. 31, 1951 (Chicago, Ill.).

American Medical Association. Voluntary Prepayment Medical care Plans (Chicago, Ill. 1951).

Agnes W. Brewster. Independent Plans Providing Medical Care and Hospitalization Insurance in 1949 in the U. S., 1950 Survey, p. 35, Social Security Administration (Washington, D. C., 1952)



Variations in annual premium charges for Blue Cross and Blue Shield membership arise from many factors. Most important are the differences in services provided. Even where two contracts provide for semiprivate accommodations, for example, one may provide all necessary hospital laboratory services and the other may provide very limited laboratory benefits. Other factors also influence premium charges: plans providing service benefits charge higher premiums than those providing cash indemnity payments; policies secured through a group contract (under which a specified percent of all employees in a given establishment must be enrolled) are less expensive than individual contracts; some areas have higher hospitalization rates or higher prevailing physicians' fees and these are reflected in higher premium charges.

In the following tabulation Blue Cross group rates and Blue Shield group rates are shown for 1951. Insofar as possible, only contracts with similar major provisions were included in the tabulation. All the Blue Cross contracts tabulated are service contracts providing semiprivate accommodations. The Blue Shield contracts are those providing medical as well as surgical benefits. The average annual premium for the specified type of Blue Cross family contract was \$45 and the average Blue Shield family premium was \$36. Blue Cross premiums ranged between \$19 and \$67 per year and Blue Shield premiums between \$24 and \$62 for a family.

Table 11.13.—Annual premium charges under group contracts, Blue Cross and Blue Shield, 1951

	Blue Cross semiprivate accommodations <sup>1</sup>		
	1 person	2 persons	Family <sup>2</sup>
Median.....	\$18	\$31	\$46
Average.....	19	31	45
Range.....	9-29	24-46	19-67
	Blue Shield Medical-Surgical Contract <sup>3</sup>		
	1 person	2 persons	Family <sup>3</sup>
Median.....	\$13	\$24	\$34
Average.....	14	26	36
Range.....	8-42	20-38	24-62

<sup>1</sup> Based on 41 Blue Cross plans having one or more certificates providing semiprivate accommodations.

<sup>2</sup> Where rates were given for each child covered, the family premium was computed to represent a family consisting of subscriber, spouse and 2 minor children.

<sup>3</sup> Based on 57 Blue Shield plans; excludes those with no medical care and those with combination hospital benefits.

SOURCES: Blue Cross Commission. Blue Cross Guide (Chicago, Ill., January 1952).

American Medical Association. Voluntary Prepayment Medical Care Plans (Chicago, Ill., 1952).

Premiums for group insurance issued by commercial insurance companies vary considerably, depending not only upon the company and the amount of benefits offered but also upon the composition of the insured group. Thus, premiums are higher for groups with a high percentage of females and for more hazardous occupational groups. Under the new major medical expense (catastrophe) insurance now being issued, some insurance companies also adjust their premiums for such factors as the age and income of the insured population and the area in which they live.

According to this table, the annual premiums for more or less comprehensive benefits for an employee and for his family under group insurance would amount to \$198. Major medical expense insurance, covering up to 75 percent of the expenses for any illness, after the first \$100 and up to a maximum of \$5,000, would cost \$78 annually for the family. These premiums are for a moderate-size group in a nonhazardous industry, assuming 25 percent of the insured are females and assuming a normal age and earning distribution.



Table 11.14.—Approximate annual premiums for various types of benefits for employees and families under insurance company group policy, 1952

Type of benefit	Approximate annual gross premiums <sup>1</sup>	
	For each employee	For each family unit <sup>2</sup>
Hospital expense insurance: Plan providing for each hospitalization a maximum of: (a) \$10 per day for room and board, up to 70 days, and \$200 for other charges, or (b) \$100 for maternity	\$23. 00	\$51. 00
Surgical insurance: Plan providing surgical schedule with \$300 maximum	11. 00	32. 00
General medical insurance: (1) Comprehensive plan providing \$5 for home visit, \$3 for hospital or office visit	19. 00	48. 50
(2) Plan providing \$5 for home, \$3 for hospital or office visit, limited to disabling illness and excluding first two visits	7. 00	
(3) Plan providing \$3 for each day of hospitalization, maximum \$150	1. 50	2. 50
X-ray and laboratory expense insurance: Plan providing scheduled amounts, maximum of \$50 a year	4. 00	9. 00
Major medical expense insurance: (1) Plan limited to periods of hospitalization and 6 months thereafter, providing 75 percent of expenses in excess of a deductible equal to \$500 or the benefits paid under the other forms of insurance, whichever greater; maximum \$5,000 for any cause of illness	16. 00	29. 00
(2) Plan providing 75 percent of expenses of any illness in excess of a "deductible" equal to the sum of \$100 and the benefits paid under the other forms of insurance; maximum \$5,000 for any cause of illness	30. 00	48. 00

<sup>1</sup> Initial annual gross premiums for moderate size group in a nonhazardous industry having 25 percent of the insurance on females and having a normal age and earnings distribution. Rates shown are before dividends or premium refunds.

<sup>2</sup> In addition to cost for employee.

SOURCE: J. Henry Smith. A Look at Modern Health Insurance, chapter 9. Chamber of Commerce of the United States. In process (Washington, D. C., 1952).

Because of differences in the scope of benefits, in the types of plans and methods of providing benefits, and in the location of the plans (in medical service areas with differing costs), it is difficult to generalize about premiums for comprehensive prepayment plans.

Plans charging very low premiums are often subsidized by employers or by other means. According to a study by the Social Security Administration, a family of four belonging to a comprehensive plan in 1949 paid on the average between \$72 and \$96 annually for insurance against most of the costs of hospital and medical care.

Table 11.15.—Annual premiums for family of 4, independent comprehensive plans, 1949

Annual contribution for family of 4 <sup>1</sup>	Number of plans <sup>2</sup>	Number of members	Annual contribution for family of 4 <sup>1</sup>	Number of plans <sup>2</sup>	Number of members
Total-----	58	1, 410, 058	\$60-\$72-----	8	395, 820
			\$72-\$84-----	4	33, 252
\$12-\$24-----	10	225, 328	\$84-\$96-----	4	252, 440
\$24-\$36-----	12	36, 039	\$96-\$108-----	4	309, 700
\$36-\$48-----	8	71, 465	\$108-\$120-----	4	78, 316
\$48-\$60-----	3	17, 103	\$120 and over-----	1	595

<sup>1</sup> Including subscriber.  
<sup>2</sup> Comprehensive plans usually include hospitalization and physicians' services in home, office, and hospital.

SOURCE: Agnes W. Brewster. Independent Plans Providing Medical Care and Hospitalization Insurance in 1949 in the United States, 1950 Survey. Social Security Administration (Washington, D. C., 1952).



According to data submitted by the Health Insurance Council, 73.6 percent of medical care insurance premiums earned by commercial companies is paid out to policy holders as benefits for hospital, surgical or medical expenses. A higher proportion of "premiums earned" is paid in benefits under group insurance policies than under individual insurance. For group insurance it is estimated that 88.9 percent of the premium dollar is returned in benefits while for individual insurance this is much less, 52.3 percent.

If this percentage is calculated on gross premiums rather than on premiums earned—i. e., premiums minus dividends—the percent returned in benefits for all commercial insurance, hospital, surgical, and medical policies is 72: for group insurance it is 86 percent and 51 percent for individual insurance.

Table 11.16.—Estimated premiums, benefits, and percent of net premiums used for benefits under health and accident policies of commercial insurance companies, 1951

Type of Insurance	Millions of dollars			Percent of premiums earned used for benefits
	Premiums written	Premiums earned	Benefits	
	(1)	(2)	(3)	
All health and accident insurance, U. S.: <sup>1</sup>				
Hospital, surgical, medical expense-----	810.3	788.0	580.0	73.6
All other benefits <sup>2</sup> -----	762.8	727.0	445.0	61.2
Group insurance:				
Hospital, surgical, medical expense-----	473.3	459.0	408.0	88.9
All other benefits-----	379.8	354.0	287.0	81.1
Individual insurance:				
Hospital, surgical, medical expense-----	337.0	329.0	172.0	52.3
All other benefits-----	383.0	373.0	158.0	42.4

<sup>1</sup> This information on premiums and benefits is estimated by the Health Insurance Council in the following way. "The aggregates of premiums and benefits reported in the Spectator Accident Register were reduced by the estimated amount of Canadian business included. Estimated adjustment expenses which were included with benefits incurred in the Spectator Accident Register, were also deducted. These were estimated at 1.7 percent of net premiums earned in the case of group insurance and 3.2 percent for individual insurance, the former ratio being based on 1951 data of the seven largest group writing companies and the latter being based on a special survey of individual business in 1949. The group insurance premiums were separated by type of benefit on the basis

of premiums written by type of benefit as given in the Survey of Group insurance of the Life Insurance Association. The corresponding separation of the individual business was made by applying to the mean amount of coverage according to the United States Chamber of Commerce survey, the estimated average premium per person or per \$1 of weekly indemnity. Loss ratios were then estimated consistent with those indicated by the 1950 experience adjusted to the level of the 1951 experience so as to reproduce the aggregate benefits incurred."

<sup>2</sup> All other benefits include cash disability, death, dismemberment and other benefits.

SOURCE: Health Insurance Council. Unpublished data.

According to the Blue Cross Commission, about 90 percent of the earned subscription income of their plans is used to provide hospitalization benefits. In the case of Blue Shield, the percent of premium income returned to subscribers for surgical and medical expenses is somewhat less, about 80 percent.

The percent of the premium dollar used for benefits varies, depending upon the size of the plan. Blue Cross plans with more than a million members return about 91 cents on the dollar, while for plans with enrollment between 50,000 and 100,000 this is about 84 cents. In Blue Shield the range is from 81 to 77 percent, according to the size of the plan.



**Table 11.17.—Earned subscription income, benefit expenditures, and percent of income used for benefits, by size of Blue Cross plan, United States, 1951**

Size of plan	Number of plans	Earned subscription income (thousands of dollars)	Hospital expense	
			Amount (thousands of dollars)	Percent of earned income
All plans <sup>1</sup> .....	82	505, 487	454, 007	89. 8
1,000,000 members .....	10	271, 877	248, 230	91. 3
500,000-1,000,000 .....	12	107, 705	96, 321	89. 4
200,000-500,000 .....	25	92, 658	81, 194	87. 6
100,000-200,000 .....	12	20, 133	17, 224	85. 5
50,000-100,000 .....	11	9, 196	7, 720	84. 0
Less than 50,000 .....	12	3, 919	3, 318	84. 7

<sup>1</sup> Includes medical-surgical data for 6 plans.

SOURCE: Blue Cross Commission. Blue Cross Plans. Operating Statement for the 12-month period ending December 31, 1951. Mimeographed. (Chicago, Illinois).

**Table 11.18.—Earned subscription income, benefit expenditures, and percent of income used for benefits, by size of Blue Shield plan, United States, 1951**

Size of plan	Number of plans	Earned subscription income (thousands of dollars)	Medical and/or surgical expenses	
			Amount (thousands of dollars)	Percent of earned income
All plans <sup>1</sup> .....	67	193, 155	153, 883	79. 7
500,000 members .....	10	120, 572	95, 908	79. 5
200,000-500,000 .....	18	48, 178	38, 476	79. 9
100,000-200,000 .....	9	14, 710	11, 933	81. 1
50,000-100,000 .....	8	5, 251	4, 140	78. 8
Less than 50,000 .....	22	4, 445	3, 427	77. 1

<sup>1</sup> Includes hospital data for 7 plans.

SOURCE: Blue Shield Commission. Financial Experience of Blue Shield Plans, Dec. 31, 1951. Mimeographed (Chicago, Ill.).

Estimates of income and expenditures for 238 independently-sponsored prepayment plans in 1949 show that, on the average, benefit expenditures accounted for about 90 percent of income. This ratio of benefits to income varied from 70 to 99 percent.

Industrial plans sponsored by employers, employees or unions, alone or in combination, used a higher proportion of income for benefits than did other types of independent plans. Several reasons may explain this. In some cases the employer meets most of the operating expenses of the plan. Some industrial plans exclude dependents and, by providing services directly for employees only, have simplified their administrative procedures.

Table 11.19.—Estimated income, benefit expenditures, and ratio of expenditures to income, 238 independent plans, by type of plan, 1949

Type of plan <sup>1</sup>	Millions of dollars		Expenditures as percent of income <sup>3</sup>
	Income	Benefit expenditures	
Total <sup>2</sup> .....	71.3	63.6	89.2
Industrial.....	43.0	39.7	92.3
Employer.....	4.5	4.4	98.6
Employee.....	20.5	18.3	89.5
Employer-employee.....	12.8	12.3	95.7
Employer-union.....	.4	.3	70.2
Union.....	4.9	4.4	91.0
Nonindustrial.....	50.8	42.8	84.1
Consumer.....	5.6	4.8	85.1
Community-wide.....	12.7	10.3	80.7
Private group clinic.....	10.0	8.8	88.4

<sup>1</sup> Includes 174 comprehensive plans and 64 limited plans.

<sup>2</sup> Because of rounding to the nearest tenth of a million, figures do not always add precisely to the totals.

<sup>3</sup> Based on the estimates before rounding.

SOURCE: Agnes W. Brewster. Independent Plans Providing Medical Care and Hospitalization Insurance in 1949 in the United States. Social Security Administration (Washington, D. C., 1952).



A comparison of the charges incurred by a hypothetical family receiving medical care through group practice prepayment and the charges incurred by the same family, paying for medical care on a direct fee-for-service basis, is given in the four following tables, based upon unpublished data, from the Permanente Health Plan.

The first of these tables shows the annual utilization rates per thousand which are applicable to a hypothetical family of 4, a husband and wife with 2 children under 20. These utilization rates are based on the experience of a sample of Permanente's membership. They reflect the average use by the members, including the one-third who did not use the plan at all as well as the one-third who made extensive use of the plan.

The private rate value of these services, based upon the private charges of Permanente to nonmembers, is shown in the next table. These private rates are compared with the fee schedule in effect between the Veterans' Administration and the California Physician's Service during the same period. For hospital services, physicians' calls in the hospital and some other services, there are no comparable fees under the VA schedule. For some other types of services the range of possible fees is given. From this it appears that the private rates charged by Permanente are in the lower range of VA-CPS fees.

The third table shows the cost to the hypothetical family of four if they used the average number of medical services and were charged private rates. The composition of the total medical bill (\$166.67) at private rate value for the entire family is given.

The concluding table shows that the private rate value of these services for a family of 4 amounted to \$166.67, compared to the \$117.81 which such service would cost a Permanente Health Plan subscriber.

Certain services provided by Permanente, such as immunization clinic services, ambulance service and other services were not priced in this analysis but are available to Permanente members as a part of their prepayment plan. Also Health Plan members who have their prescriptions filled at Permanente pharmacies are reported to pay less for them than they would pay if purchased elsewhere. If these items were taken into consideration, the difference between Permanente membership rates and the private value would be somewhat greater.

These tables are based on the utilization of average amounts of service as established by study of a sample population group enrolled in a group practice prepayment plan. Basing cost to the consumer upon this average utilization of services by a hypothetical family, it is obvious that they would have had to pay a higher sum for equivalent services if they had not belonged to the group-practice prepayment plan. It also appears that services under the individual fee-for-service method with rates accepted as fairly standard (Veterans' Administration), would be just about, if not more costly than under the group practice private rates.

These tables suggest the economic advantages both of group practice and of prepayment.

However, for the individual family this is only one way of looking at group-practice prepayment. The attractiveness of prepayment membership in any one year might not be merely the difference between \$118 and \$167, but rather the difference between budgetable premiums and stipulated extra charges on the one hand and unpredictable medical expenses on the other hand. The savings to the hypothetical family of approximately \$50 a year, even though it represents a very significant portion of budgeted medical care payments, is not nearly as attractive as a potential saving of \$500, \$1,000 or even \$5,000, an expenditure which might result from a serious illness in any one year.

Table 11.20a.—Annual utilization rates per 1,000 members for specified age-sex groups, May 1949 to April 1950

[Based on 6,667 Permanente Health Plan members]

Member	Physicians' services			Hospital days	Other out-patient services					
	Out-patient	Home	Surgical proce- dures in hospital		Labora- tory exams	X-ray		Physical therapy	Minor surgery	Nurses home calls
						Diag- nosis	Treat- ment			
Adult male.....	2, 482	38	(1)	684	639	323	31	296	34	81
Adult female.....	4, 222	63	(1)	1, 018	1, 207	422	48	197	30	122
Children under 20 years of age:										
Male.....	2, 627	96	(1)	392	356	133	10	33	46	311
Female.....	2, 411	93	(1)	248	401	109	18	4	20	243

<sup>1</sup> Because of the nature of the Permanente Health Plan operation it is impossible to show physicians' in-patient hospital services.

SOURCE: Permanente Health Plan, unpublished data. Permanente Foundation (Oakland, Calif.).

Table 11.20b.—Estimated volume and private rate value of services to 100,000 population using utilization rates and private rate charges based on sample study of Permanente Health Plan members

Service	Permanente Health Plan			Veterans Administration fee schedule with California Physicians' Service <sup>1</sup>
	Estimated volume of services per 100,000 population	Average private rate value of services	Total private rate value of services	
<i>Services—Permanente rate and volume</i>				
Hospital services <sup>2</sup> -----	68,500 (days)-----	\$22.50 per hospital day-----	\$1,541,250	( <sup>3</sup> ).
Physicians' services to hospital patients. <sup>4</sup> -----	68,500 (days)-----	14.19 per hospital day-----	972,015	( <sup>3</sup> ).
Out-patient physicians' services-----	311,600-----	4.39 per visit-----	1,367,924	( <sup>3</sup> ).
Out-patient laboratory services-----	75,100-----	4.27 per service-----	320,677	( <sup>3</sup> ).
Out-patient X-ray services:				
Diagnosis-----	29,400-----	10.53 per examination-----	309,582	( <sup>3</sup> ).
Treatment-----	3,100-----	6.00 per treatment-----	18,600	( <sup>3</sup> ).
Other out-patient services-----	17,500-----	3.00 per service-----	52,500	( <sup>3</sup> ).
Out-patient minor surgery-----	3,300-----	5.40 per service-----	17,820	( <sup>3</sup> ).
Nurses' house calls-----	16,200-----	3.00 per call-----	48,600	( <sup>3</sup> ).
<i>Selected services—Permanente and Veterans Administration rate</i>				
Hospital services <sup>2</sup> -----		22.50 per hospital day-----		( <sup>5</sup> ).
Physicians' services:				
To hospital patients-----		14.19 per hospital day-----		( <sup>5</sup> ).
To ambulatory patients-----		4.39 per visit-----		\$2.50–\$15.00 (range). <sup>6</sup>
To patients at home-----		5.00 per call-----		3.75–15.00 (range). <sup>7</sup>
Out-patient laboratory services-----		4.27 per service-----		1.50–10.00 (range). <sup>8</sup>
Out-patient X-ray services:				
Examination-----		10.53 per examination-----		1.25–25.00 (range). <sup>9</sup>
Treatment-----		6.00 per treatment-----		5.00–100.00 (range). <sup>10</sup>

<sup>1</sup> Fee schedule for medical services submitted to Veterans Administration by California Physicians' Service, effective Dec. 1, 1948, to May 31, 1950.

<sup>2</sup> Excluding professional services.

<sup>3</sup> It is not possible to make exact comparisons of these items. Range of fees for comparable services are indicated below, with explanatory footnotes.

<sup>4</sup> Amount of \$14.19 per day for Permanente includes private rate charge for surgical services as well as physicians' visits to hospital patients.

<sup>5</sup> Not applicable.

<sup>6</sup> First office visit, \$5; subsequent visits, \$2.50 for routine examination and care. By specialists, first visit for consultation, \$10; subsequent visits, \$2.50. Examination by internist to determine diagnosis, \$15. Examples of fees for special procedures are: bronchoscopy—\$25 private rate at Permanente, and \$50 (including after-care) under the California Veterans Administration fee schedule; fracture, carpal bone, reduction and dressing—\$10 private rate at Permanente and \$25 under the California Veterans Administration fee schedule; cornea, removal of foreign body—\$7.50 (one or more) private rate at Permanente and \$5 (simple) under the California Veterans Administration fee schedule; paracentesis, thoracic—\$12.50, private

rate at Permanente, and \$5 under the California Veterans Administration fee schedule.

<sup>7</sup> First home day visit, \$5; subsequent visits, \$3.75. Home night visits, \$7.50. By specialists, consultation in home, \$15; subsequent visits, \$3.75.

<sup>8</sup> Veterans Administration fees for some common laboratory tests are: urinalysis, \$1.50; complete blood count, \$5; basal metabolism rate, \$5; blood culture, \$5; sugar tolerance, \$10.

<sup>9</sup> Examples of diagnostic X-ray fees, including interpretation, under Veterans Administration are: abdomen (KUB), \$10; colon, barium enema, \$15; gall bladder, Graham, \$15; GI series without barium enema or cholecystography, \$25; fluoroscopic examination, \$5; hand, \$7.50; tooth, \$1.25.

<sup>10</sup> Examples of X-ray treatment fees are: cancer, superficial (depending on size, location, and technical difficulties), \$10–\$100. Preoperative irradiation, short intensive course, \$50 total.

SOURCES: Permanente Health Plan, unpublished data. Permanente Foundation (Oakland, Calif.).

California Physicians' Service. Fee Schedule for Medical Services. Veterans Administration (Washington, D. C., Dec. 1, 1948, to May 31, 1950).



**Table 11.20c.—Estimated private rate value of services provided to family of 4, based on utilization rates of a sample of Health Plan members, May 1949 to April 1950**

Member	Average private rate value <sup>1</sup> for									
	Physicians services				Hospital services	Other out-patient services				
	Total	Out-patient	Home	Hospital		Laboratory	X-ray	Physical therapy	Minor surgery	Nurses home calls
Total, <sup>2</sup> family of 4-----	\$166. 67	\$50. 68	\$1. 46	\$34. 65	\$53. 22	\$10. 95	\$11. 12	\$1. 65	\$0. 67	\$2. 28
Percent-----	100. 0	30. 4	0. 9	20. 8	31. 9	6. 6	6. 7	1. 0	0. 4	1. 4
Adult Male-----	\$47. 27	\$11. 63	\$0. 21	\$9. 86	\$16. 79	\$2. 97	\$4. 31	\$0. 97	\$0. 27	\$0. 27
Adult Female-----	\$65. 42	\$19. 14	\$0. 31	\$13. 45	\$22. 03	\$5. 16	\$4. 26	\$0. 57	\$0. 15	\$0. 35
Children under 20 years of age:										
Male-----	\$31. 28	\$10. 50	\$0. 48	\$7. 40	\$8. 83	\$1. 40	\$1. 43	\$0. 10	\$0. 21	\$0. 93
Female-----	\$22. 70	\$9. 41	\$0. 46	\$3. 94	\$5. 57	\$1. 42	\$1. 12	\$0. 01	\$0. 04	\$0. 73

<sup>1</sup> Private rates established by Permanente Health Plan.

<sup>2</sup> Based on a sample of 6,677 members.

SOURCE: Permanente Health Plan, unpublished data. Permanente Foundation (Oakland, Calif.).

**Table 11.20d.—Estimated charges for services for family of four belonging to Permanente Health Plan, and with private rate charges applied to services as utilized by Permanente Health Plan members**

	Permanente Health Plan	Private rate value
Family of 4:		
Annual premium-----	\$71. 40	-----
"Extra charges"-----	46. 41	-----
Total-----	117. 81	\$166. 67

SOURCE: Permanente Foundation. Unpublished data, Permanente Health Plan (Oakland, Calif.).



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(g) Borrowers retaining publications longer than the time specified, and neglecting to return them when demanded, forfeit the right to borrow until they be returned, and for such further time as may be ordered.

Any borrower failing to comply with a request for the return of a publication shall be considered liable for the cost of replacing it, and the Council may, after giving due notice to him, order it to be replaced at his expense.

No publication may be reissued to the same borrower until at least seven days have elapsed after its return, neither may it be transferred by one borrower to another.

(h) Publications may not be taken or sent out of the United Kingdom.

(i) Publications returned through the post must be securely packed in a box or otherwise adequately protected.

(j) The Library may be used for reference by Fellows, Ordinary Members and Associates during the office hours of the Institute.

(k) Parcels should be addressed :

THE ROYAL SANITARY INSTITUTE,  
90, BUCKINGHAM PALACE ROAD,  
LONDON, S.W.1.







